



**AIR AND RADIATION ADMINISTRATION
DRAFT PART 70 OPERATING PERMIT**

DOCKET # 24-001-0203

COMPANY: AES WR Partnership

LOCATION: 11600 Mexico Farms Road S.E.
Cumberland, MD 21502

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**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
AIR QUALITY PERMITS PROGRAM**

PART 70/ TITLE V OPERATING PERMIT PROGRAM OVERVIEW

Origin of the Part 70 Operating Permit

Title V of the Clean Air Act (amended) requires each state to implement a federally enforceable operating permit program for major sources of air pollution. This program, the Part 70 Permit Program, also known as the Title V Permit Program, is designed to provide a comprehensive administrative document (a Part 70 Permit) that will identify all air emissions sources at a given facility with the applicable federal regulations, and will establish the methodology by which the owner/operator will demonstrate compliance. Required testing, monitoring, record-keeping, and reporting for each emissions source are identified, including regulation citation. This Operating Permit is a five-year renewable permit. A responsible official for each facility subject to a Part 70 Operating Permit is required to annually certify compliance with each applicable requirement for that facility.

The Department has had an Air Quality Operating Permit program for many years. The State-Only enforceable permit conditions and applicable regulations listed in Air Quality Permits to Construct issued to a facility will be incorporated into the Part 70 Operating Permit in a separate section. The Department will continue to enforce these state-only requirements. The Part 70 Operating permit will supersede a facility's current State Permit to Operate upon issuance.

Part 70 Operating permits are not for new construction, and do not add any new emissions limitations, standards, or work practices on an affected facility. There may, however, be additional testing, record keeping, monitoring, and reporting requirements. A few facilities which were not subject to Maryland's existing State Permit to Operate Program will be subject to the requirements of the Part 70 Program. The Part 70 Program is based on a facility's potential to emit regulated air pollutants. The State Permit to Operate program is based on types of sources specifically listed in the Code of Maryland Regulations (COMAR). For these few facilities which were not required to receive a state Permit to Operate but are subject to a Part 70 permit, there will be the additional burdens of certifying emissions annually and paying an annual emissions-based permit fee.

Part 70 Permit Issuance Process

The Department will undertake a technical review of the Part 70 permit application and will prepare a draft Permit and Fact Sheet. The Fact Sheet will explain the basis and technical analysis used by the Department to develop federally enforceable permit conditions, including the required testing, monitoring, record keeping, and reporting provisions for each emissions unit at the permitted facility. The Fact Sheet will also include a description of the facility operations and the current compliance status with applicable requirements. If there are any discrepancies between the Part 70 permit application and the draft permit, the Fact Sheet will contain a discussion of the inconsistencies and the final resolution.

The Part 70 Program provides the public, adjacent states, and EPA the opportunity to review and submit comments on draft Part 70 permits. The public may also request a public hearing on the draft permit. Dockets containing a facility's permit application, supporting documents, draft Permit and Fact Sheet will be available for review both at MDE headquarters located at 1800 Washington Boulevard, Baltimore, MD and a public library near the facility's location. Please note: during Covid restrictions, the dockets will be made available on-line only at:
<https://mde.maryland.gov/programs/Permits/AirManagementPermits/Pages/title5draftpermits.aspx>

Public Participation Process

The initial step of the Part 70/ Title V public participation process is the publication of a notice of intent to issue a Part 70 Permit and opportunity for concerned citizens to submit written comments and/ or request a public hearing. The Department will publish the notice at least one time in the legal section of a newspaper of general circulation in the area where the facility is located. The Notice will provide the description of the facility for which a Part 70 permit has been drafted, the location of the docket which contains the application and draft permit conditions with supporting documentation, and the requirements for requesting a public hearing. The applicant is responsible for all costs incurred in the publication of this legal notice. The Department will also send notification to adjacent states, local public officials and interested parties, will include the notice in the docket at the library, and/or post the notice to the Department's website.

The public will have 30 days from the date the notice appears in the newspaper to submit written comments to the Department, or to request in writing a public hearing. Adjacent states will have 30 days from the receipt of notification to submit written comments to the Department.

A request for a public hearing must be made in writing within the 30-day comment period. Comments and hearing requests should be sent to the attention of the Air Quality Permits Program Public Participation Coordinator, Ms. Shannon Heafey via email at Shannon.heafey@maryland.gov or mailed to The Air and Radiation Administration, 1800 Washington Boulevard, Suite 720, Baltimore, MD 21230-1720.

Public Hearing

The purpose of a public hearing is to give interested parties the opportunity to submit comments for the record which are germane to the draft federally enforceable permit conditions. Comments submitted at the hearing, or in writing to the Department during the comment period, should address errors and deficiencies in the permit such as unidentified emissions units, incorrect or deficient regulation citation, deficient record keeping, monitoring, reporting or testing requirements and unresolved compliance issues.

If a public hearing is requested, the Department will make arrangements with the facility to schedule a hearing and will send notification of the hearing to public officials, interested parties, and the EPA. The Department will publish a notice of the scheduled hearing in the legal section of the same newspaper in which the opportunity notification appeared, at least one time and at least 30 days prior to the hearing. The notice will state the date, time, and location of the hearing. During Covid restrictions, public hearings may be held on-line. This public notice will also be posted on the MDE Air Permits Program web page.

After the public comment period has closed, the Department will review the formal testimony as part of the final review and prepare a Response to Comments document which will be sent to the EPA along with the draft Part 70 Permit and Fact Sheet.

Testimony on state-only requirements will be kept on file at the Department as part of the formal record, however, state-only rules and regulations are not federally enforceable, and therefore are not within the scope of the EPA review. The Department will keep a record of the identity of the commentors, their statements, a summary of the issues raised during the public comment period, and the Response to Comments document for at least five years.

Citizen Petition to EPA to Object to Permit Issuance

Interested parties may petition the EPA to object to the Part 70 Permit if the EPA has not already objected, within 60 days after the 45-day EPA review period has ended. The petition period will be posted on the EPA website. The EPA will only consider objections to the federally enforceable provisions of the draft permit which were raised with reasonable specificity during the public comment period, unless: (1) the petitioner demonstrates that it was impractical to raise the objections within the public comment period, or (2) the grounds for the objection arose after the comment period. If the EPA agrees with the petition, the Department will reopen, revise, or revoke the permit as determined.

Applicant Objection to Permit Issuance and Recourse

If the applicant objects to the federally enforceable permit conditions contained in the issued Part 70/Title V Operating permit, it has 15 days from receipt of the issued Permit to request a contested case hearing. More information on that can be found in 40CFR70, and COMAR 26.11.03.11.

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AIR AND RADIATION ADMINISTRATION**

**NOTICE OF INTENT TO ISSUE PART 70 OPERATING PERMIT, OPPORTUNITY TO SUBMIT
WRITTEN COMMENTS OR TO REQUEST A PUBLIC HEARING**

The Department of the Environment, Air and Radiation Administration (ARA) has completed its review of the application for a renewal Part 70 Operating Permit submitted by the AES WR Partnership located in Allegany County, MD. The facility consists of 180-megawatt coal-fired steam electric plant with No. 2 fuel oil burned as a start-up fuel.

The applicant is represented by:

Ms. Kara Hawkins
AES WR Partnership
11600 Mexico Farms Road S.E.
Cumberland, MD

The Department has prepared a draft Part 70 Operating Permit for review and is now ready to receive public comment. A docket containing the draft permit, application, supporting documentation and fact sheet is available for review. Docket #24-001-0203 is available for public inspection on the Department's website at the following link:

(<https://mde.maryland.gov/programs/Permits/AirManagementPermits/Pages/title5draftpermits.aspx>)

Interested persons may submit written comments or request a public hearing on the draft permit. Written comments must be received by the Department no later than 30 days from the date of this notice. Requests for a public hearing must be submitted in writing and must also be received by the Department no later than 30 days from the date of this notice.

Comments and requests for a public hearing will be accepted by the Department if they raise issues of law or material fact regarding applicable requirements of Title V of the Clean Air Act, and/or regulations implementing the Title V Program in Maryland found in COMAR.

A Request for public hearing shall include the following:

- 1) The name, mailing address, and telephone number of the person making the request;
- 2) The names and addresses of any other persons for whom the person making the request if representing; and
- 3) The reason why a hearing is requested, including the air quality concern that forms the basis for the request and how this concern relates to the person making the request.

All written comments and requests for a public hearing should be directed to the attention of Ms. Shannon Heafey, Title V Coordinator, via email at Shannon.heafey@maryland.gov, or mailed to The Air Quality Permits Program, Air and Radiation Administration, 1800 Washington Boulevard Suite 720, Baltimore, Maryland 21230-1720.

Further information may be obtained by emailing Ms. Heafey or calling (410) 537-4433.

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Background

AES WR Limited Partnership (AES) is a coal fired electric generating station located at 11600 Mexico Farms Road, S.E in Cumberland in Allegany County in Maryland. The facility operates a 180-megawatt coal-fired steam electric plant. The facility consists of an ABB CE coal-fired atmospheric circulating fluidized bed (ACFB) boiler with a designed rated capacity of 2070 million Btu/hour heat input when burning bituminous coal. No. 2 fuel oil is burned as a start-up fuel.

A Selective non-catalytic reduction (SNCR) system provides primary control of nitrogen oxides (NO_x) to the ACFB design. Sulfur dioxide (SO₂) emissions are controlled by the introduction of limestone into the fluidized bed of the boiler. A bag house controls particulate emissions in the ACFB boiler flue gas. Support equipment includes two (2) eclipse natural gas and Number 2 oil-fired limestone dryers, each rated at five (5) million Btu per hour with particulate emissions controlled by a bag house, and SO₂ emissions controlled using low sulfur fuel oil of 0.05% by weight or less.

The facility supplies process steam and a slip-stream of exhaust gas to an on-site carbon dioxide (CO₂) recovery plant, owned and operated by AES-WR Limited Partnership, for the production of food grade liquid CO₂.

Other equipment includes one (1) Caterpillar 562 kW (753 brake horsepower) diesel fuel-fired emergency boiler feed water pump (EBFP) using low sulfur diesel fuel (0.05 weight percent sulfur or less); coal, limestone and ash receiving, processing, storage, and loadout facilities using wet suppression, baghouses, covers, and enclosures to control particulate emissions; and two (2) temp-heat models THP-4500 natural gas fired space heaters, each rated at 4.5 million Btu/hour located in the boiler building.

In 2013, AES-WR added two installations to the facility: one (1) automated coal blending system comprising of a 45-ton feed hopper and a 30-in drag-chain conveyor constructed under Permit to Construct No. 001-6-0304; and a modification to an existing emissions unit – addition of two rolls (the equipment associated with a Gundlach Model 3080S single-stage, two-roll pre-crusher) to the existing Gundlach roll crusher under Permit to Construct No. 001-3-0127. The permits were issued in March 2013.

On August 18th, 2015, AES was-WR issued a Permit to Construct for one (1) Refined Coal system equipped with a Torit dust collector and bin vent filters. The unit will be used for the treatment of process coal using Chem-mod as a chemical additive. However, the facility was unable to comply with COMAR

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26.11.02.04B, "Duration of Permits" as the unit was not built within 18 months of issuance. The Permit was reissued on June 8th, 2017 under a different MDE registration number. This project was never constructed.

AES-WR construction was completed in August 1999 and commenced commercial operation on February 10, 2000. AES produces electricity for distribution by the Potomac Edison Power Company. The applicable SIC Code for the facility is 4911 - Electric Services

AES-WR did not undergo review under the Certificate of Public Convenience and Necessity (CPCN) process required of most utilities and independent electricity power generators and is not an affected source under the Acid Rain Program because AES had a qualifying power purchase agreement that was signed prior to 1990. The ACFB is subject to the New Source Performance Standards (NSPS) found in 40 CFR Part 60 Subpart Da since the boiler was constructed after the applicability date (September 18, 1978) for fossil fuel-fired utility steam generators. The facility is also subject to 40 CFR Part 60 Subpart Y and 40 CFR Part 60 Subpart OOO. The facility qualifies as a Title V source pursuant to COMAR 26.11.03.01A because its plant-wide actual emissions are greater than the 100-ton major source threshold for NO_x, SO_x, and CO. AES-WR is located in Allegany County (Air Quality Region 1), which is a part of the ozone transport region. AES-WR submitted a Part 70 Operating Permit renewal application on September 04, 2012. An administrative completeness review was conducted, and the application was found to be complete.

Table 1 summarizes the most recent five years of actual emissions from AES-WR. The primary source of criteria pollutants is the facility's boiler:

TABLE 1: ACTUAL EMISSIONS

Emission Year	NO_x (TPY)	SO_x (TPY)	PM₁₀ (TPY)	CO (TPY)	VOC (TPY)	HAPs (TPY)
2014	552	1167	12.9	931	2.74	14.2
2015	445	1090	15.4	899	2.46	13.7
2016	358	891	25.1	741	1.37	11.4
2017	454	1023	16.2	838	1.64	12.6
2018	496	1048	15.9	823	1.59	12.3

CROSS-STATE AIR POLLUTION RULE (CSAPR)

The U.S. Environmental Protection Agency (EPA) issued the Cross-State Air Pollution Rule (CSAPR) in July 2011 to address Clean Air Act requirements concerning interstate transport of air pollution and to replace the previous Clean Air Interstate Rule (CAIR) which the D.C. Circuit remanded to the EPA for

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replacement. Following the original rulemaking, CSAPR was amended by three further rules known as the Supplemental Rule, the First Revisions Rule, and the Second Revisions Rule. As amended, CSAPR requires 28 states to limit their state-wide emissions of sulfur dioxide (SO₂) and/or nitrogen oxides (NO_x) in order to reduce or eliminate the states' contributions to fine particulate matter and/or ground-level ozone pollution in other states. The emissions limitations are defined in terms of maximum state-wide "budgets" for emissions of annual SO₂, annual NO_x, and/or ozone season NO_x by each state's large electricity generating units (EGUs). The emissions budgets are implemented in two phases of generally increasing stringency. As the mechanism for achieving compliance with the emissions limitations, CSAPR establishes federal implementation plans (FIPs) that require large EGUs in each affected state to participate in one or more new emission trading programs that supersede the existing CAIR emissions trading programs. On December 30, 2011, in response to petitions challenging CSAPR, the D.C. Circuit granted a stay of the rule, ordering the EPA to continue administering CAIR on an interim basis. In a subsequent decision, the Court vacated CSAPR but on April 29, 2014, the U.S. Supreme Court reversed that decision and remanded the case to the D.C. Circuit Court for further proceedings. In order to allow CSAPR to replace CAIR in an orderly manner, EPA filed a motion asking the D.C. Circuit to lift the stay and to toll, by three years, all CSAPR compliance deadlines that had not yet passed. On October 23, 2014, the Court granted the EPA's motion.

Consistent with the Court's order, compliance with CSAPR's Phase 1 emissions budgets is now required in 2015 and 2016 and compliance with the rule's Phase 2 emissions budgets and assurance provisions is now required in 2017 and beyond.

This renewal Part 70 permit identifies the applicable regulations of the CSAPR rule as found in 40 CFR Part 97 subparts AAAAA- NO_x Annual Trading Program, subparts EEEEE- CSAPR NO_x Ozone Season Group 2 Trading Program, and subpart CCCCC SO₂ Group 1 Trading Program.

MATS (MERCURY AND AIR TOXICS) RULE

The US EPA finalized on February 16, 2012, the National Emissions Standards for Hazardous Air Pollutants from coal and oil-fired Electric Utility Steam Generating Units (EGUs) codified under 40 CFR Part 63, Subpart UUUUU, also known as the Mercury and Air Toxics (MATS) rule. The MATS rule established national emission limitations and work practices for certain hazardous air pollutants emitted from coal and oils-fired steam generating units as well as requirements to demonstrate initial and continuous compliance with the emission limitations. Existing units are required to comply with the rule requirements by

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April 16, 2015 while new or reconstructed units were required to comply by April 16, 2012 or upon start-up.

AES-WR is subject to the requirements of this rule because it meets the applicability requirements for the rule as an existing source. A source is subject to the rule if it is a coal-fired EGU or oil-fired EGU as defined in §63.10042. The section defined a coal-fired electric utility steam generating unit as an electric utility steam generating unit meeting the definition of “fossil fuel-fired” that burns coal for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year. The section also defined electric utility steam generating unit (EGU) as a fossil fuel-fired combustion unit of more than 25 megawatts electric (MWe) that serves a generator that produces electricity for sale. It further adds that a fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 MWe output to any utility power distribution system for sale is considered an electric utility steam generating unit. Coal-fired EGUs are subcategorized as defined in §63.10042 and as:

- (1) EGUs designed for coal with a heating value greater than or equal to 8,300 Btu/lb., and
- (2) EGUs designed for low rank virgin coal (Ref: §63.9990) AES falls under existing EGUs designed for coal with a heating value greater than or equal to 8,300 Btu/lb. Specific limitations and requirements, which AES must meet are presented below and in the permit.

COMPLIANCE ASSURANCE MONITORING REQUIREMENTS

Compliance Assurance Monitoring (CAM) is intended to provide a reasonable assurance of compliance with applicable requirements under the Clean Air Act for large emission units that rely on air pollution control (APC) equipment to achieve compliance. The CAM approach establishes monitoring for the purpose of: (1) documenting continued operation of the control measures within ranges of specified indicators of performance (such as emissions, control device parameters, and process parameters) that are designed to provide a reasonable assurance of compliance with applicable requirements; (2) indicating any excursions from these ranges; and (3) responding to the data so that the cause or causes of the excursions are corrected.

In order for a unit to be subject to CAM, the unit must be located at a major source, be subject to an emission limitation or standard; use a control device to achieve compliance; have pre-control emissions of at least 100% of the major source amount; and must not otherwise be exempt from CAM. Applicability

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determinations are made on a pollutant-by-pollutant basis for each emissions unit.

AES-WR identified the coal fired ACFB boiler as subject to CAM requirements for particulate matter and provided a CAM Plan for the unit. It also provided a CAM applicability determination for minor sources at the premises - for installations such as limestone dryers rated at 5 MMBtu per hour equipped with a baghouse for particulate matter recovery, and coal, limestone, and ash receiving, processing, storage, and load-out facilities utilizing baghouses, wet suppression systems, covers and enclosures for particulate emissions control and recovery.

The baghouses, as utilized on these units, do not meet the definition of a control device. EPA defines a control device, under 40 CFR 64.2, as a device other than "inherent process equipment" that is used to destroy or remove air pollutants prior to discharge to the atmosphere. The baghouses on these units are more akin to and meet the EPA's definition of "inherent process equipment" defined as equipment that is necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulation. EPA has in effect distinguished a control device from inherent process equipment, and since the baghouses are used primarily for material recovery, and not primarily for the purposes of air pollution control, the units serviced by these baghouses are exempt from CAM applicability determination and CAM Plan.

REGIONAL GREENHOUSE GAS INITIATIVE (RGGI)

The Regional Greenhouse Gas Initiative (RGGI), a **state only enforceable program**, is a market-based carbon dioxide (CO₂) cap and trade program designed to reduce CO₂ emissions from fossil fuel-fired power plants. The Healthy Air Act required Maryland to join RGGI by July 2007. Maryland joined RGGI by signing RGGI's multi-state Memorandum of Understanding (MOU) on April 20, 2007. The MOU required Maryland to adopt regulations by December 31, 2008, implementing the RGGI program. The Maryland CO₂ Budget Trading Program, Code of Maryland Regulations (COMAR) 26.09.01 to .03, became effective on July 17, 2008. COMAR 26.09.04 became effective as an emergency action on April 4, 2008 and as a permanent action on August 25, 2008. The regulations require the following:

- 1) Implement a cap-and-trade program for CO₂ emissions from fossil fuel-fired electric generating units located in Maryland having a capacity of at least 25 megawatts;

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- 2) Distribute CO₂ allowances to stakeholders through auction, sale and/or allocation;
- 3) Require each affected source to have a CO₂ budget account representative and a compliance account;
- 4) Require each budget unit to hold in its source's compliance account at the end of each 3-year control period one allowance for each ton of CO₂ emissions emitted in that period;
- 5) Require sources to monitor emissions and submit quarterly and annual emission reports;
- 6) Establish set-aside accounts for voluntary renewable purchase, limited industrial generator exemptions, and long-term contract generators;
- 7) Establish a consumer benefit or strategic energy purpose fund to support energy efficiency, directly mitigate electricity ratepayer impacts, promote renewable or non-carbon emitting energy technologies, stimulate or reward investment in the development of innovative carbon emissions abatement technologies with significant carbon reduction potential, and fund administration of the program; and
- 8) Establish procedures to evaluate and award allowances to persons who undertake offset projects that will reduce CO₂ emissions.
- 9) Require affected sources to submit an application for a CO₂ Budget Permit. When issued, a CO₂ Budget Permit will be added as an attachment to the Part 70 permit.

An initial CO₂ Budget Trading Permit (Attachment 1) will be issued in conjunction with the Part 70 permit renewal. The permit has a term of 5 years. The permit is **state-only enforceable**.

GREENHOUSE GAS (GHG) EMISSIONS

AES-WR emits the following greenhouse gases (GHGs) related to Clean Air Act requirements: carbon dioxide, methane, and nitrous oxide. These GHGs are generated from four principle sources, which are the atmospheric circulating fluidized bed boiler, emergency boiler feed water pump, limestone dryers, and space heaters contained within the facility premises.

AES emits greenhouse gases at the major source level (threshold: 100,000 tpy CO₂e) as evidenced by the annual GHG emissions provided in Table 2 below. However, the facility has not triggered the Prevention of Significant Deterioration (PSD) requirements for GHG emissions because the facility has not undergone a major modification. Therefore, there are no applicable GHG Clean Air Act requirements at this time. However, the Permittee is required to continue to

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quantify its facility-wide GHG emissions and report them in accordance with Section 3 of the Part 70 permit.

Table 2 summarizes the actual emissions from AES-WR based on its Annual Emission Certification Reports:

Table 2: Greenhouse Gases Emissions Summary

GHG	Conversion factor	2016 tpy CO₂e	2017 tpy CO₂e	2018 tpy CO₂e
Carbon dioxide (CO ₂)	1	1,193,084	1,348,942	1,324,501
Methane (CH ₄)	25	141	160	157
Nitrous Oxide (N ₂ O)	298	21	23	23
Total GHG CO₂eq		1,202,867	1,359,796	1,335,280

EMISSION UNITS IDENTIFICATION

AES-WR has identified the following emission units shown in Table 3 as subject to the Title V operating permit program:

TABLE 3 - EMISSION UNITS

Emissions Unit Number	MDE - ARA Registration Number	Emission Unit Name	Description	Date of Installation
EU-1	001-3-0127	Fluidized Bed Boiler	Atmospheric Circulating Fluidized Bed Boiler burning bituminous coal and No. 2 diesel fuel during start-up.	August, 1999
EU-2	001-6-0136	Limestone Truck Unloading Operation	Limestone truck unloading operation. PM emissions are controlled by a baghouse.	August, 1999
EU-3 and EU-4	001-6-0136	Two Limestone Crushing and Drying Systems	Each system contains one Raymond Roller Mill rated at 20 tons/hr., one natural gas/#2 oil-fired dryer rated at 5 MMBTU/hr., and a conveyor rated at 30 ton/hr. Each system's PM emissions are controlled by a baghouse.	August, 1999

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EU-5	001-6-0136	Limestone Storage Silo	Limestone storage silo. PM emissions controlled by a baghouse	August, 1999
EU-6	001-3-0127	Coal Truck Unloading Operation	Truck unloading operation located in the coal unloading building. PM emissions controlled by a baghouse.	August, 1999
EU-7	001-3-0127	Coal Crushing and Reclaiming System	Contains two crushers, two vibrating feeders, one surge bin, two enclosed reclaim conveyors, one enclosed stockpile conveyor and one enclosed transfer conveyor, each located inside coal crusher building. Emissions are controlled by a baghouse.	August 1999; March, 2013 (Gundlach crusher modification)
EU-8	001-3-0127	Coal Storage System.	Four storage silos connected to one baghouse that controls PM emissions.	August, 1999
EU-9	001-3-0127	Bed Ash Day Bin	Bed Ash Day Bin emissions vent through a baghouse.	August, 1999
EU-10	001-3-0127	Bed ash storage silo	Bed ash storage silo emissions vent through a baghouse.	August, 1999
EU-11	001-3-0127	Fly ash storage silo	Fly ash storage silo emissions vent through a baghouse.	August, 1999
EU-12	001-9-0081	Boiler Feed water Pump	Diesel fueled boiler feed water pump rated at 562 KW (740 HP).	August, 1999
EU-17 and EU-18	001-6-0243 001-6-0244	Space Heaters	Two natural gas fired boilers, each rated at 4.5 MMBTU/hr. used for comfort heating	August, 1999
EU-19	001-6-0304	Fuel Blending Station	One (1) automated coal blending system comprising of a 45-ton feed hopper, and a 30-in drag-chain conveyor.	March, 2013

The gap in the EU numbers (EU-13 – EU-16) represents emission units (storage tanks) that are insignificant installations and are included under the Insignificant Activities Section.

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Overview of the Part 70 Permit

Section I of the Part 70 Permit contains a brief description of the facility and an inventory list of the emissions units for which applicable requirements are identified in Section IV of the permit.

Section II of the Part 70 Permit contains the general requirements that relate to administrative permit actions. This section includes the procedures for renewing, amending, reopening, and transferring permits, the relationship to permits to construct and approvals, and the general duty to provide information and to comply with all applicable requirements.

Section III of the Part 70 Permit contains the general requirements for testing, record keeping and reporting; and requirements that affect the facility as a whole, such as open burning, air pollution episodes, particulate matter from construction and demolition activities, asbestos provisions, ozone depleting substance provisions, general conformity, and acid rain permit. This section includes the requirement to report excess emissions and deviations, to submit an annual emissions certification report and an annual compliance certification report, and results of sampling and testing.

Section IV of the Part 70 Permit identifies the emissions units, emissions standards, emissions limitations, operational limitations, and work practices applicable to each emissions unit located at the facility. For each standard, limitation, and work practice, the permit identifies the basis by which the Permittee will demonstrate compliance. The basis will include testing, monitoring, record keeping, and reporting requirements. The demonstration may include one or more of these methods.

Section V of the Part 70 Permit contains a list of insignificant activities. These activities emit very small quantities of regulated air pollutants and do not require a permit to construct or registration with the Department. For insignificant activities that are subject to a requirement under the Clean Air Act, the requirement is listed under the activity.

Section VI of the Part 70 Permit contains State-only enforceable requirements. Section VI identifies requirements that are not based on the Clean Air Act, but solely on Maryland air pollution regulations. These requirements generally relate to the prevention of nuisances and implementation of Maryland's Air Toxics Program.

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Regulatory Review/Technical Review/Compliance Methodology

- I. Emissions Unit Number EU-1:** One (1) Atmospheric Circulating Fluidized Bed Boiler (ACFB) with a designed rated capacity of 2070 MMBtu/hr. of heat input.

Particulate emissions in the boiler flue gas are controlled with the use of a bag house. Opacity of the flue gas is measured continuously with a continuous opacity monitoring system (COMS).

Sulfur dioxide (SO₂) emissions in the boiler flue gas are controlled by the introduction of limestone into the fluidized bed of the boiler. SO₂ emissions are measured continuously with a continuous emissions monitoring system (CEMS)

Nitrogen oxide (NO_x) emissions in the boiler flue gas are controlled with the use of a selective non-catalytic reduction (SNCR) system. NO_x emissions are measured continuously with a CEMS.

The Department issued AES a PSD Approval (No. 94-01) on May 13, 1994 and Permit to Construct Nos. 001-3-0127, 001-6-0136 and 001-4-0067 on November 17, 2005. On July 28, 2005, AES requested administrative changes to two aspects of the PSD Approval and Permit to Construct Nos. 001-3-0127, 001-6-0136 and 001-4-0067. The first was to increase allowable annual operating hours from 8664 while operating at the unit rated capacity of 2070 MMBtu/hour heat input to 8760 with a corresponding reduction in heat input to 2047 MMBtu/hour which is averaged on a 12-month rolling basis. These changes did not create any ambient air impacts. The second was to change operating limits of 12 hours daily and 4380 hours annually per limestone dryer to a combined operating limit of 8760 hours per year for both dryers, as opposed to individual unit limits, to maximize operating flexibility. The PSD Approval No. 94-01 and Permit to Construct Nos. 001-3-0127, 001-6-0136 and 001-4-0067 were reissued on November 17, 2005.

The permit for the ACFB boiler was modified again in March in 2009 to clarify the annual heat input limitation. The boiler is limited to 17,934,480 MMBTU on a 12-month rolling basis. This is equal to the design capacity 2070 MMBtu/hr. multiplied by the original limitation of 8664 hours per year.

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Applicable Standards and Limitations

A. Visible Emissions

1. **COMAR 26.11.09.05A (1)**, In Areas I, II, V, and VI, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is greater than 20 percent opacity.

Exceptions: COMAR 26.11.09.05A(1) does not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:

- i. The visible emissions are not greater than 40 percent opacity; and
- ii. The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period. **[Authority: COMAR 26.11.09.05A (3)].**

2. **40 CFR 60.42Da(b)** - NSPS Subpart Da, which limits the discharge into the atmosphere of any gases which exhibit greater than 20 percent opacity (6-minute average) except for a 6-minute period per hour of not more than 27% opacity.

The limit under §60.42Da applies at all times except during periods of startup, shutdown, or malfunction. **[Authority: 40 CFR 60.48 Da (a)].**

Note: Compliance with visible emissions limit will be the basis for demonstrating compliance with the applicable NSPS regulation.

Compliance Demonstration:

The Permittee shall continuously monitor opacity of the stack gases using a continuous opacity monitor that is certified in accordance with 40 CFR Part 60, Appendix B and that meets the quality assurance criteria codified in COMAR 26.11.31 **[Authority: COMAR 26.11.01.10 and PSD Approval #94-01A, and 40 CFR 60.49Da].**

The Permittee shall perform QA/QC procedures on the Continuous Opacity Monitoring (COM) system as required by permit to construct (PTC) 001-3-0127, 001-6-0136 & 001-4-0067 issued on August 10, 1994 and amended on November 17, 2005 and NSPS 40 CFR Part 60 Subpart Da. The Permittee shall provide the Department a notice of intent to audit the CEM system at least 30 day prior to the proposed test date. **[Authority: 40 CFR Part 60, subpart Da and PTC 001-3-0127, 001-6-0136 & 001-4-0067 issued on August 10, 1994 and amended on November 17, 2005].**

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The Permittee shall ensure that valid COM data is collected for a minimum of 95 percent of the operating hours in each quarter **[Authority: COMAR 26.11.01.10D (1)C]**.

The Permittee shall maintain all CEM records necessary to show compliance with the data reporting requirements of COMAR 26.11.01.11E and 40 CFR 60.49Da). **[Authority: COMAR 26.11.01.11E and 40 CFR 60.49Da]**.

The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following:

- i. The cause, time periods, and magnitude of all emissions, which exceed the applicable emission standards (Note: This includes PSD and NSPS standard);
- ii. The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;
- iii. The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the validity of emission data;
- iv. Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter;
- v. Quarterly quality assurance activities; and
- vi. Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and
- vii. Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation." **[Authority: COMAR 26.11.01.11E and 40 CFR 60.49Da]**.

For any period for which opacity data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operation of the control system and affected facility during periods of data unavailability are to be compared with operation of the control systems and affected facility before and following the period of unavailability **[Authority: 40 CFR 60.51 Da(f)]**.

Discussion

The Permittee has installed and operates a COMS that is certified in accordance with 40 CFR Part 60 Appendix B and that meets the quality assurance criteria codified in COMAR 26.11.31 " Quality Assurance Requirements for Continuous

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Opacity Monitors (COMs) The Permittee submits quarterly reports as required and the reports have demonstrated the facility's compliance with the SIP and NSPS opacity standards.

B. Particulate Emissions

1. **40 CFR 60.42Da(a)** – NSPS Subpart Da, which limits particulate matter emissions to 0.03 lbs./MMBtu heat input. The limit under §60.42 Da applies at all times except during periods of startup, shutdown, or malfunction. [**Authority: 40 CFR 60.48Da(a)**].
2. **§60.48Da Compliance provisions.** “(f) For affected facilities for which construction, modification, or reconstruction commenced before May 4, 2011, compliance with the applicable daily average PM emissions limit is determined by calculating the arithmetic average of all hourly emission rates each boiler operating day, except for data obtained during startup, shutdown, or malfunction periods. Daily averages must be calculated for boiler operating days that have out-of-control periods totaling no more than 6 hours of unit operation during which the standard applies.”
3. **PSD Approval No. 94-01A**, which limit PM₁₀ emissions to 0.015 lbs./MMBtu heat input - 3-hour average and 136 tons per year based on a maximum heat input of 17,934,480 MMBtu averaged on a rolling 12-month period. (See PSD limits in Table IV-1, Section 1.1 Paragraph E below).

Note: The same monitoring, record keeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.42Da(a) and the PSD limit.

4. **COMAR 26.11.09.06(A)(2)** which limits particulate emissions to be discharged into the atmosphere in excess of the amounts shown in Figure 2. For the ACFB boiler this is 0.1 lb./MMBtu heat input. (Streamlined with PSD limit. Compliance with the PSD BACT limit assures compliance with the RACT limit.)

Streamlining discussion: COMAR 26.11.11.09.06(A)(2) is a RACT limit promulgated in 1980 for existing sources. As part the PSD BACT case by case determination process in 1994, it was determined that the 1980 RACT limit did not satisfy PSD BACT for the proposed ACFB boiler. BACT in 1994 required significantly greater controls and a lower emission limit. Compliance with the PSD BACT limit assures compliance with the COMAR RACT limit.

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PM Compliance demonstration:

The Permittee shall perform a total particulate and PM₁₀ emissions test at least once during the life of the permit. The Permittee shall submit a test protocol to the Department for review and approval at least 30 days before any testing is conducted and a notice of intent to test at least 10 days prior to the scheduled test date to allow representation by the Department's personnel. The Permittee shall maintain the results of emissions testing for total particulate and PM₁₀ for a period of at least five years. The Permittee shall submit the results of stack tests in a final report within 45 days from test completion. The Permittee is also required to implement a Compliance Assurance Monitoring (CAM) plan for particulate emissions as required under 40 CFR Part 64. **[Authority for the compliance demonstration - Periodic Monitoring: COMAR 26.11.03.06C].**

Discussion:

The ACFB boiler was stack tested on March 3, 2013 for PM₁₀ emission and in 2011 for PM emission. The particulate emissions results were 0.001 lb./MMBtu of heat input on a 3-hour average for both PM₁₀ and PM. At this rate, PM₁₀ emissions were computed to be 7.64 tons per year. These numbers are significantly less than the PSD standards of 0.015 lb./MMBtu and Federal NSPS standard of 0.03 lbs./MMBtu of heat input on a 3-hour basis and 136 tons per year.

COMPLIANCE ASSURANCE MONITORING PLAN FOR THE ACFB BOILER

I. Background

A. Emissions Unit

Description:	One (1) ABB-CE Atmospheric Fluidized Bed Combustion Boiler
Identification:	Emission Point 1
MARMA Reg. No.:	3-0127

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.:	PSD Approval No. 94-01, Part A, Condition 7
Emission Limits:	Particulate Matter: 0.015 pounds/MMBtu (3-hour average)
Monitoring Requirements:	Opacity

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C. Control Technology

Reverse air baghouse manufactured by ABB operated under negative pressure.

II. Monitoring Approach

The key elements of the monitoring approach are presented in Tables 1 and

Table 1 - Monitoring Approach – Indicator 1 (Primary)

I. Indicator Monitoring Approach	Opacity Opacity is measured continuously with a COMS unit
II. Indicator Range	An internal, non-enforceable trigger level of 10.9% average opacity (three-hour block average).
Corrective Action	An excursion triggers an inspection, corrective action as necessary, and a reporting requirement.
III. Performance Criteria	
A. Data Representativeness	The monitoring system consists of a COMS which monitors the opacity of the exhaust gas stream.
B. Verification of Operational Status	Continuous opacity data will be collected in accordance with COMAR 26.11.01.10, and COMAR 26.11.31.
C. QA/QC Practices and Criteria	The COMS will be certified in accordance with 40 CFR Part 60, Appendix B. COMS will be calibrated, maintained, and operated according to manufacturer's recommendations. COM data will be collected and validated in accordance with COMAR 26.11.01.10 and COMAR 26.11.31.
D. Monitoring Frequency and Data Collection Procedure	Opacity data are automatically reduced to 6-minute block averages calculated from 36 or more equally spaced data points.

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E. Record Keeping	The continuous opacity data collected, and corrective actions taken will be maintained for 5 years.
F. Reporting	Report of excursions and corrective actions will be submitted to the Department in a quarterly report.

Table 2 - Monitoring Approach – Indicator 2 (Secondary)

I. Indicator Monitoring Approach	Opacity trend Opacity is measured continuously with a COMS unit
II. Indicator Range	A clear step change of more than 5% in opacity during isolation of any baghouse module during the normal cleaning sequence.
Corrective Action	An excursion triggers an inspection, corrective action as necessary, and a reporting requirement.
III. Performance Criteria	
A. Data Representativeness	The monitoring system consists of a COMS which monitors the opacity of the exhaust gas stream. The opacity trend is typically monitored in the control room during normal operation and represents a good early warning system to identify potential bag failures within the isolated module.
B. Verification of Operational Status	Continuous opacity data will be collected in accordance with COMAR 26.11.01.10 and COMAR 26.11.31.
C. QA/QC Practices and Criteria	The COMS will be certified in accordance with 40 CFR Part 60, Appendix B. COMS will be calibrated, maintained, and operated according to manufacturer's recommendations. COM data will be collected and validated in accordance with COMAR 26.11.01.10 and COMAR 26.11.31.

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D. Monitoring Frequency and Data Collection Procedure	Opacity data are automatically reduced to 6-minute block averages calculated from 36 or more equally spaced data points.
E. Record Keeping	The continuous opacity data collected, and corrective actions taken will be maintained for 5 years.
F. Reporting	Report of excursions and corrective actions will be submitted to the Department in a quarterly report.

CAM PLAN JUSTIFICATION

I. Background

The ACFB boiler, which is identified as the pollutant-specific emission unit, burns bituminous coal and utilizes Number 2 fuel oil as a start-up fuel for the generation of steam and electricity. Particulate emissions are controlled by an ABB reverse air baghouse. The baghouse consists of twelve (12) compartments. Opacity is measured using a continuous opacity monitoring system (COMS).

II. Rationale for Selection of Performance Indicator

Opacity was selected as the performance indicator because it is indicative of good operation and maintenance of the baghouse. The facility is required to utilize a COMS to satisfy the monitoring requirements of 40 CFR Part 60, Subpart Da. An increase in opacity indicates reduced performance of a particulate control device. Therefore, an increase in opacity is used as a performance indicator.

III. Rationale for Selection of Indicator Level

The equation giving a correlation between opacity and particulate mass emissions developed by Robertson et. al., and reported in the Proceedings of the EPRI May 1999 CEM Users Group Meeting, is used to develop a primary opacity indicator range to allow reasonable assurance of compliance. The Robertson et. al. relationship is:

$$PM \text{ (mg/dscm)} = 0.462 \times \text{Opacity (\%)}^2 - 4.60 \times \text{Opacity (\%)} + 13.5$$

AES has a few sets of simultaneous measurements of opacity and particulate matter mass emissions from the main boiler stack. The following table summarizes these measurements.

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Date	Stack Test PM	COMS Opacity
	(mg/dscm)	(%)
02/21/2005	4.58	3.3
07/21/2010	5.54	2.9
05/22/2012	6.87	2.3
03/07/2013	2.29	3.1
09/22/2015	2.35	-
03/24/2016	2.30	-

The stack test PM concentrations were measured using U.S. EPA Method 5 and are the average of three runs during each of the four stack tests. The corresponding COMS opacity is the average opacity that was measured by the existing COMS during the PM stack test. The measured opacities during these stack tests are very steady and low; the average opacity for the stack tests is 2.9 %. The corresponding PM concentration measurements are more variable, which would be an expected result from Method 5 analyses; the average PM concentration for the stack tests is 4.82 mg/dscm. This level of PM concentration at low opacity is consistent with the Robertson et. al. relationship. Therefore, the Robertson et. al. relationship is used to develop an opacity trigger level for the CAM indicator range.

The PM₁₀ emission standard for AES's ACFB is 0.015 lb./MMBtu (3-hour average). Based on the carbon dioxide F-Factor for bituminous coal combustion of 1800 scf/MMBtu (U.S. EPA Method 19), and a carbon dioxide concentration in the ACFB exhaust of 15%, dry, the emission standard for AES is equivalent to 20 mg/dscm, or

$$0.015 \text{ lb/MMBtu} \times 1 \text{ MMBtu/1800 dscf} \times 0.15 \times 453590 \text{ mg/lb.} \times 1 \text{ cf/0.02832 cm}$$

For conservatism, AES is using 90% of the emission standard (or 18 mg/dscm) as the basis for an opacity trigger level. Generally solving the Robertson et. al. equation for opacity results in:

$$\text{Opacity (\%)} = [4.6 + \text{SQRT}\{(4.6)^2 - (4)(0.462)(13.5-PM)\}]/[(2)(0.462)]$$

Therefore, the opacity level corresponding to 90% of the PM₁₀ emission standard (PM = 18 mg/dscm) is 10.9% opacity. This is the proposed primary opacity indicator.

When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported. This indicator range

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was selected because an increase in opacity is indicative of an increase in particulate emissions.

For the secondary indicator, the indicator of a clear step change of more than 5% in opacity during the isolation of any baghouse module during the normal cleaning sequence is a reasonable indicator of anomalous opacity reading and therefore an indicator of potential abnormal performance. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported. This indicator range was selected because an increase in opacity is indicative of an increase in particulate emissions.

C. Sulfur Oxide Emissions

1. **40 CFR 60.43Da(a)(1) - (4)** – NSPS Subpart Da, which prohibit the discharge of any gases into the atmosphere which contain sulfur dioxide from the combustion of solid fuel in excess of: (1) 1.20 lbs/MMBtu heat input per hour and 10 percent of the potential combustion concentration (90 percent reduction); (2) 30 percent of the potential combustion concentration (70 percent reduction), when emissions are less than 0.60 lbs./MMBtu of heat input; (3) 1.4 lb./MWh gross energy output; or (4) 0.15 lb./MMBtu heat input.

Note: Compliance with the emissions limitation and percent reduction requirements are determined on a 30-day rolling average [**Authority: 40 CFR 60.43Da(g)**].

2. **PSD Approval No. 94-01A**, which limit sulfur dioxide emissions to 0.21 lbs./MM Btu per 3-hr block average; 0.19 lbs./MM Btu per 24-hr block average and 0.16 lbs./MM Btu per annual average – 1403 tons per year. In addition, the boiler shall be designed to achieve a control efficiency for sulfur dioxide of no less than 95 percent (based on a 30-day block average) based on the design coal specified in the PSD application.
3. **COMAR 26.11.09.07(A)(1)(a)** which limits the oxides of sulfur to 3.5 pounds per million BTU and **COMAR 26.11.09.07(A)(1)(a)** which limits sulfur in distillate fuel oil in excess of 0.3 percent. (Streamlined with PSD limit. Compliance with the PSD BACT limit assures compliance with this RACT limits.)

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Streamlining discussion: COMAR 26.11.11.09.07(A)(1)(a) and .07(A)(1)(c) are RACT limits promulgated in 1980 for existing sources. As part the PSD BACT case by case determination process in 1994, it was determined that the 1980 RACT limit did not satisfy PSD BACT for the proposed ACFB boiler. BACT in 1994 required significantly greater controls and a lower emission limit. Compliance with the PSD BACT limit assures compliance with the COMAR RACT limits.

Compliance demonstration:

The Permittee shall continuously monitor sulfur dioxide emissions in accordance with the requirements of 40 CFR Part 60, Subpart Da §60.47Da(b) to demonstrate compliance with the PSD limits of 0.21 lbs./MM Btu per 3-hr average; 0.19 lbs./MM Btu per 24-hr average and 0.16 lbs./MM Btu per annual average, and 1403 tons per year. **[Authority: 40 CFR Part 60, Subpart Da, COMAR 26.11.01.11B (1), and PSD Approval #94-01A].**

The Permittee shall conduct performance certification testing as required by 40 CFR Part 60 Appendix F on the sulfur dioxide continuous emissions monitoring system. The Permittee shall provide the Department with a notice of intent to audit the CEM system at least 30 day prior to the proposed test date. **[Authority: 40 CFR Part 60, Subpart Da and PTC Nos. 001-3-0127 issued on August 10, 1994 and amended on November 17, 2005].**

The Permittee shall maintain all CEM records necessary to comply with the data reporting requirements of COMAR 26.11.01.11E for the demonstration of compliance with the PSD standards. **[Authority: COMAR 26.11.01.11E].**

The Permittee shall ensure that valid CEM data are obtained by the SO_x and carbon dioxide monitoring system for a minimum of 90 percent of the operating hours in each quarter. **[Authority: PTC 001-3-0127 issued August 10, 1994 and reissued November 17, 2005].**

The Permittee must obtain at least two valid data hours to calculate a valid three-hour CEM average and at least twelve hours to calculate a valid daily CEM average. **[Authority: PTC 001-3-0127 issued August 10, 1994 and reissued November 17, 2005].**

The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter that contains the information listed in COMAR 26.11.01.11E(2)(c). (See reporting requirement for opacity CEM above) **[Authority: COMAR 26.11.01.11E(2)(c)].**

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In addition, the Permittee shall report the NSPS percent reduction of the potential concentration of sulfur dioxide for each 30 successive boiler operating days, ending with the last 30-day period in the quarter, reasons for non-compliance with the standard, and description of corrective actions taken. **[Authority: 40 CFR 60.51Da(b)(3)].**

For any period for which sulfur oxide emissions data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operation of the control system and affected facility during periods of data unavailability are to be compared with operation of the control systems and affected facility before and following the period of unavailability **[Authority: 40 CFR 60.51Da(f)].**

Discussion:

The Permittee complies with all CEMS monitoring, notification, recording keeping, reporting, and performance certification testing requirements. The CEM system is required to meet the SO₂ monitoring system requirements of 40 CFR Part 75.

D. NO_x Emissions

1. **40 CFR 60.44Da(a)(1), NSPS** Subpart Da which prohibits the discharge of any gases into the atmosphere which contain nitrogen oxides, from the combustion of bituminous coal in excess of 0.6 lbs./MMBtu of heat input based on a 30-day rolling average.

Note: The limit under §60.44Da applies at all times except during periods of startup, shutdown, or malfunction. **[Authority: 40 CFR 60.48Da(a)].**

2. **PSD Approval No. 94-01A**, which limit nitrogen oxide emissions to 0.10 lbs./MMBtu on a 24-hr block average and 907 tons per year. The PSD approval includes the operation of an SNCR system to achieve these NO_x emissions limits.
3. **COMAR 26.11.09.08B(1)(c)** – Emissions Standard for coal (dry Bottom): 0.38 lbs./MMBtu of heat input based on a 30-day rolling average.
4. The Permittee shall install, operate and certify in accordance with 40 CFR Part 75 a continuous monitoring system to demonstrate compliance with NO_x emissions. **[Authority: COMAR 26.11.38B(1)]**

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Compliance Demonstration:

The Permittee shall operate a continuous emission monitoring system to continuously monitor the NO_x emissions. The CEM system shall meet the performance specification of 40 CFR Part 75, Subpart H. **[Authority: 40 CFR Part 60 Subpart Da, and PTC No. 001-3-0127 and PSD Approval #94-01A issued August 10, 1994, COMAR 26.11.38B(1) and reissued November 17, 2005].**

The Permittee shall conduct performance certification testing as required by 40 CFR Part 75, Subpart H on the NO_x continuous emissions monitoring system. The Permittee shall provide the Department with a notice of intent to audit the CEM system at least 30 day prior to the proposed test date. **[Authority: 40CFR60 Subpart Da, PTC No. 001-3-0127 and PSD Approval #94-01A issued August 10, 1994, COMAR 26.11.38B(1 and reissued November 17, 2005]**

The Permittee shall ensure that valid CEM data are obtained by the NO_x and carbon dioxide monitoring systems for a minimum of 90 percent of the operating hours in each quarter. **[Authority: PTC 001-3-0127 issued August 10, 1994 and re-issued November 17, 2005]**

The Permittee must obtain at least twelve data hours to calculate a valid daily CEM average. **[Authority: 001-3-0127 issued August 10, 1994 and re-issued November 17, 2005]**

The Permittee shall maintain all CEM records necessary to comply with the data reporting requirements of COMAR 26.11.01.11E for the demonstration of compliance with the PSD standards. **[Authority: COMAR 26.11.01.11E]**

The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter that contains the information listed in COMAR 26.11.01.11E. (See reporting requirement for opacity CEM above.) **[Authority: COMAR 26.11.01.11E]**

For any period for which nitrogen oxides emissions data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operation of the control system and affected facility during periods of data unavailability are to be compared with operation of the control systems and affected facility before and following the period of unavailability **[Authority: 40 CFR 60.51Da(f)]**

Discussion:

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The Permittee complies with all CEMS monitoring notification, recoding keeping, reporting, and performance certification testing requirements. Reviews of the quarterly reports have not found any violations.

E. Other Operating Limits and Standards

1. PSD Approval # 94-01A

The Permittee shall comply with the following emissions standards and allowable annual emissions in Table 1 below:

Table 1 (Limits of PSD Approval No. 94-01A)

Pollutant	Maximum Emissions Std. (lbs./MMBtu)	Maximum Annual Emissions (TPY)
Carbon Monoxide	0.15 per 24-hr average; 0.188 @ 40% load	1360
Hydrocarbons (non-methane as VOC)	0.005 per 3-hr average; 0.007 @ 40% load	45
Sulfuric Acid Mist	0.006 per 3-hr average	54.4
Fluorides (Total)	0.007 per 3-hr average	5.89
Beryllium	7.7×10^{-7} per 3-hr average	7×10^{-3}
Lead	9.9×10^{-6} per 3-hr average	0.09
Mercury	1.7×10^{-5} per 3-hr average	0.16
Ammonia	0.005 per 3-hr average @ full load 0.008 @ 75% load 0.011 @ 40% load	45
The Permittee shall limit the heat input to the ACFB boiler to 17,934,480 MMBtu on a rolling 12-month basis.		

Note: The Permittee shall limit the annual heat input to the ACFB boiler to 17,934,480 MMBtu. on a rolling 12-month basis. This condition replaced the original operational limit of 8664 hours per year on a rolling 12-month basis at the rated capacity of 2070 MMBtu/hr. The 17,934,480 MMBtu is equal to 2070 MMBtu/hr. multiplied by 8664 hours.

Compliance Demonstration:

The Permittee shall properly operate and maintain the ACFB boiler in a manner consistent with the boiler combustion optimal performance and design criteria and shall maintain an operations manual and preventive maintenance plan that

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relate to combustion performance. The Permittee shall maintain records of maintenance performed on ACFB boiler that relate to combustion performance for at least five years. **[Authority: COMAR 26.11.03.06C].**

The Permittee shall operate CEMS to continually monitor either the oxygen content or carbon dioxide of the ACFB boiler stack gases **[Authority: 40 CFR Part 60 subpart Da and PSD Approval # 94-01A issued August 10,1994 and reissued November 17, 2005].**

Alternative Flow Monitoring methodology: The Permittee shall:

- a. Perform a DAHS verification (recommend annually), to demonstrate that the correct default flow rate value (either 540,000 scfh or 1,080,00 scfh, as appropriate) is being added to the measured stack flow rate when the slip stream is extracted. The results of this demonstration shall be kept on-site in a format suitable for inspection; and
- b. For any hour(s) in which the slip stream is being extracted, but the digital signal indicating the number of blowers in operation is either missing, invalid or not interpretable, add 1,080,000 scfh to measured stack flow rate(s) (recommend annual verification); and
- c. Perform relative accuracy test audits (RATAs) of the flow monitor as described in (a) or (b), below. That is, either:
 - i. Conduct the RATA testing at a time when the CO₂ slipstream is not being extracted; or
 - ii. If the slipstream is being extracted at the time of the RATA, compare the *unadjusted* flow rates measure by the monitor (i.e., with no correction factor for the slipstream volume) against the reference method measurements. **[Authority: PSD Approval #94-01A, Part B-Construction, #17 issued August 10,1994 and 2002 Petition approval from EPA dated May 1, 2002].**

The Permittee shall maintain records of the CEMS readings for the oxygen or carbon dioxide content of the ACFB boiler stack gases for at least five years. **[Authority: PSD Approval # 94-01A and COMAR 26.11.03.06C].**

The Permittee shall submit a CEMS summary data for oxygen or carbon dioxide along with the quarterly SO_x and NO_x CEMs excess emissions report to the Department 30 days following the end of each calendar. **[Authority: COMAR 26.11.01.11E and PTC No. 001-3-0127].**

The Permittee shall maintain records of the daily heat input to the ACFB boiler and the hours of operation of the ACFB boiler for at least five years **[Authority: Periodic monitoring-COMAR 26.11.03.06C]** and Report on the annual

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emissions certification report, the total hours of operation of the ACFB boiler.
[Authority: PTC No. 001-3-0127]

Discussion:

The following is an explanation and discussion of the compliance monitoring for the PSD limits for carbon monoxide, hydrocarbons (non-methane and VOC), sulfuric acid mist, fluorides (total), beryllium, lead, mercury and ammonia.

With respect to carbon monoxide (CO) and hydrocarbon (HC) emissions, these pollutants directly correlate with the ACFB combustion efficiency. CO and HC emissions are products of incomplete combustion. There are no emission control devices to reduce these emissions. Combustion efficiency can be determined by measuring excess O₂ and CO₂. Currently, the ACFB boiler stack has CEMS for oxygen (O₂) and carbon dioxide (CO₂). These CEMS input data to boiler process controllers to continuously maintain maximum combustion efficiency as determined during boiler tune ups. The PSD emission limits were established based upon typical boiler efficiency levels. The O₂ and CO₂ CEMS data can be used to demonstrate continuous compliance with the PSD limits for CO and HC.

Sulfuric acid mist and fluorides are acid gases which are controlled along with SO₂ with the limestone injection in the ACFB boiler. In the MATS rule, SO₂ is a surrogate for the acid gas HAPs. The MATS rule allows for use of a SO₂ CEMS to demonstrate compliance with the acid gas emission limits. AES will likewise use this strategy for ensuring continuous compliance with the prescribed PSD limits for acid gases, sulfuric acid mist and fluorides. Based on actual stack test and CEM data, AES has also demonstrated historically there is a significant margin of compliance between the allowable PSD limit and actual emissions (both annual and short term). (See Table at the end of this response)

Beryllium and lead are both particulate matter (PM) and are controlled along with other PM in a fabric filter baghouse. In EPA's MATS rule, PM has been established as a surrogate for toxic non-mercury metals (including PSD metals). The MATS rule allows a demonstration of compliance for beryllium and lead by demonstrating compliance with the rule's PM limit. The Part 70 permit compliance demonstration for beryllium and lead is based on a three-prong approach. (1) performance testing to demonstrate that the specified PM limit is being met; (2) operation and maintenance of the boiler to ensure that it continues to operate properly; and (3) a CAM plan to provide a mechanism for assessing the performance of the baghouse on an ongoing basis.

Stack testing for PM is based on the requirement for the MATS testing. MATS testing as a Low Emitter (LEE) is once every three years. The MATS emissions limits for beryllium and lead are more stringent than the PSD limits,

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(beryllium 0.2 lb./TBtu vs 0.77 lb./TBtu and lead 1.2 lb./TBtu vs. 9.9 lb./TBtu). Therefore, compliance with the MATS PM limit will assure compliance with both the MATS and PSD beryllium and lead limits.

By properly operating and maintaining the boiler in a manner consistent with the boiler combustion optimal performance and design criteria assures that the PM emissions from the boiler going into the baghouse will be at a level similar to the quantities measured during compliance stack tests. If the baghouse is properly operated and maintained, the PM emissions including beryllium and lead will be in compliance.

Thirdly, the CAM plan will assure that the baghouse performs at a level of effectiveness as it did during compliance stack testing. In the event performance indicators in the CAM plan to assure proper baghouse operations fall out of range, AES has pre-established corrective action to restore proper operations.

With respect to mercury (Hg) emissions, the MATS rule has an emissions limit of 1.2 lb./TBtu. The PSD limit is less stringent at 17.0 lb./TBtu. AES has qualified as a LEE for Hg. Specifically, the Hg tests require meeting an annual thirty-day sorbent trap emission rate of 0.12 lb./TBtu, (i.e. 10% of the regular MATS Hg standard) for three (3) years. The first 30-day sorbent trap results showed Hg levels at 0.014 lb./TBtu. AES will continue to perform annual 30-day sorbent trap monitoring. Although the MATS Hg standard is a 30-day average and the PSD limit the average of three (3) one-hour tests, because the tested Hg results are three orders of magnitude below the PSD limit, there is a reasonable level of confidence of compliance with the PSD limits.

Finally, with respect to ammonia, ammonia emissions (ammonia slip) originate from the SNCR control system. Ammonia slip is unreacted ammonia which results from the incomplete reaction of NO_x and the reagent anhydrous ammonia. The AES boiler operators are able to optimize the injection rate of the anhydrous ammonia and thereby minimize ammonia slip based on observed NO_x generation trends. The operators use the data from the NO_x CEM to optimize the injection rate. Under the normal steady load, the NO_x generated from the combustion in the ACFB boiler is low and requires minimal amount of anhydrous ammonia. During ramping of load or operational upsets such as burners out of service, the NO_x rate fluctuates so the operators rely on their operational experience along with the NO_x CEM data to adjust the anhydrous ammonia injection rates in order to maintain compliance with the NO_x PSD emission limit but not over inject anhydrous ammonia which could cause ammonia slip. Use of a NO_x CEM system which is required for demonstrating continuous compliance with the NO_x emission limits will also be the monitoring strategy for compliance with the ammonia PSD emissions limit. This approach

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also reduces the cost of the anhydrous ammonia which is the most significant operating cost for an SNCR system.

The following tables present the results of stacks test completed (Table 1.) and annual certified emissions (Table 2.) for carbon monoxide, hydrocarbons (non-methane and VOC), sulfuric acid mist, fluorides (total), beryllium, lead, mercury and ammonia for calendar years 2010 through 2013.

The stack tests results include data from the initial test performed in 2000 and subsequent testing in 2010. The stack testing in 2010 was in response to an EPA Section 114 Information Collection Request to collect information related to HAP emissions from New and Existing Coal and Oil-fired Electric Utility Steam Electric Units. The pollutants which were not tested in 2010 are marked as "n/a".

The Tables below show that the margin of compliance is significant for lead, beryllium, mercury, sulfuric acid mist, fluorides, and ammonia. In addition, the quantity of emissions is extremely low for these pollutants.

Table 1. Stack Test results 2000 and 2010.

Pollutant	2000 Test Results (lbs./MMBtu)	2010 Test Results (lbs./MMBtu)	PSD Limits (lbs./MMBtu)
CO	0.1273 @ full load	n/a	0.15 @ full load 24 hour average
	0.1876 @ 40% load	n/a	0.188 @ 40%
VOC	0.0 @full load	0.00124 @ full load	0.005 @full load 3-hour average
	0.000168@ 40% load	n/a	0.007 @ 40% load
Lead	0.857×10^{-6}	0.345×10^{-6}	9.9×10^{-6}
Beryllium	0.11×10^{-7}	0.149×10^{-7}	7.7×10^{-7}
Mercury	0.015×10^{-5}	0.00234×10^{-5}	1.7×10^{-5}
Sulfuric Acid Mist	0.0010	n/a	0.006
Fluorides	0.00027	0.0000564	0.007

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Ammonia	0.00050 @ full load	0.000119 @ full load	0.00500 @ full load
	0.00027 @ 75% load	n/a	0.008 @ 75%
	0.00064 @ 40 % load	n/a	0.01100 @ 40% load

Table 2. Annual Certified Emissions (Tons/year)

Pollutant	2015 (tons)	2016 (tons)	2017 (tons)	2018 (tons)	PSD Limit (tons)
CO	899	741	836	823	1360
VOC	2.5	1.37	1.64	1.6	45
Lead	0.0025	0.00212	0.0024	0.002	0.09
Beryllium	0.000154	0.000144	0.00017	0.000121	7x10 ⁻³
Mercury	0.000133	0.000124	0.000065	0.000039	0.16
Fluorides	0.398	0.328	0.372	0.363	5.89
Sulfuric Acid Mist	NR	NR	NR	NR	54.4

F. MERCURY AND AIR TOXICS (MATS) RULE

40 CFR Part 63, Subpart UUUUU – National Emissions Standards for Hazardous Air Pollutants: Coal and Oil-Fired Electric Utility Steam Generating Units.

The MATS rule, effective 4/16/15, requires coal-fired electric utility steam generating units (EGUs) to reduce toxic emissions. On June 29, 2015, the Supreme Court issued an opinion in Michigan et al v. Environmental Protection Agency. The Supreme Court's decision remands the MATS rule to EPA and returns the matter to the U.S. Court of Appeals for the D.C. Circuit for further proceedings. As of the issuance of this permit, the MATS rule is in effect. The Supreme Court decision in Michigan requires the EPA to undertake additional proceedings for the limited purpose of evaluating costs for its "appropriate and necessary" finding which preceded the MATS rule. Until and unless the MATS rule is stayed and/or vacated by the D.C. Circuit, MATS related conditions in the

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Title V permit apply. If the MATS rule is stayed and/or vacated or partially stayed and/or vacated, then the affected conditions in the Title V permit will be revised/removed accordingly.

The MATS rule reduces emissions of heavy metals, include mercury (Hg), arsenic, chromium, and nickel and acid gases, including hydrogen chloride (HCL) and hydrogen fluoride (HF).

AES has demonstrated compliance with all aspects of the MATS rule beginning April 15, 2015.

PM (filterable PM) – Standard: 3.0E-2 lb./MMBtu or 3.0E-1 lb./MWh.

Compliance demonstrated by stack testing. PM is a surrogate for non-mercury metals.

AES has qualified as a Low EGU Emitter (LEE) for PM by conducting 12 quarterly stack test and reporting emissions less than 50% of the standard. The LEE status reduces the required stack testing to once every 36 months. The last stack test was June 15, 2017 and the next test is required by June 15, 2020, which will be delayed if not already done. If any future stack test report emissions greater than 50% of the standard, quarterly stack testing would be required.

SO₂: Standard: 2.0E-1 lb./MMBtu or 1.5 lb./MWh.

Compliance demonstrated by SO₂ CEM. 30 boiler operating days – compliance period. AES is required to include the required SO₂ data in quarterly report which have demonstrated continued compliance with the SO₂ standard.

In the rule, PM is a surrogate for toxic non-mercury metals and HCL is a surrogate for toxic acid gases. Sulfur dioxide (SO₂) may also be a surrogate for HCL if the EGU has a scrubber or a fluidized bed. AES Warrior Run has elected to demonstrate compliance with the targeted HAPS in the MATS rule by demonstrating compliance with emission standards for Hg, PM and SO₂. SO₂ can be a surrogate for HCL, if the EGU has a fluidized bed.

Hg: Standard: 1.2 lb./TBtu or 1.3E-2 lb./GWh.

Compliance demonstrated by a sorbent trap monitoring system once per year (30-day period).

AES has qualified for LEE status by reporting test results fir 3 years less than 10% of the standard. Annual testing is still required. 2019 test was conducted November 21, 2019 thru December 21, 2019. The test result: Hg - 6.0E-3 lbs./TBtu showed less than the standard.

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Required Tune-ups

Required at least once every 36 months. Last tune-up was conducted January 22, 2018. Next schedule tune-up is January 2021.

AES Warrior Run is subject to Mercury and Air Toxics (MATS) Rule including: §63.9991, §63.10000, §63.10006, §63.10007, §63.10010, §63.10020, §63.10021, §63.10030, §63.10031, §63.10033, & §63.10040.

G. Cross State Air Pollution Rule (CSAPR)

Applicable Standards and Limitations:

**A. 40 CFR Part 97 Subpart AAAAA-CSAPR NO_x Annual Trading Program
CSAPR NO_x Annual Trading Program requirements (40 CFR 97.406)**

The Permittee shall comply with the provisions and requirements of §97.401 through §97.435

Note: §97.406(c) NO_x emissions requirements. For CSAPR NO_x Annual emissions limitation: As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall hold, in the source's compliance account, CSAPR NO_x Annual allowances available for deduction for such control period under §97.424(a) in an amount not less than the tons of total NO_x emissions for such control period from all CSAPR NO_x Annual units at the source.

Allowance transfer deadline means, for a control period in a given year, midnight of March 1 (if it is a business day), or midnight of the first business day thereafter (if March 1 is not a business day), immediately after such control period and is the deadline by which a CSAPR NO_x Annual allowance transfer must be submitted for recordation in a CSAPR NO_x Annual source's compliance account in order to be available for use in complying with the source's CSAPR NO_x Annual emissions limitation for such control period in accordance with §§97.406 and 97.424.

**B. 40 CFR Part 97 Subpart EEEEE-CSAPR NO_x Ozone Season Group 2
Trading Program
CSAPR NO_x Ozone Season Group 2 Trading Program Requirements (40
CFR 97.806)**

The Permittee shall comply with the provisions and requirements of §97.801 through §97.835.

Note: §97.806(c) NO_x emissions requirements. For CSAPR NO_x Ozone Season Group 2 emissions limitation: As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO_x

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Ozone Season Group 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall hold, in the source's compliance account, CSAPR NO_x Ozone Season Group 2 allowances available for deduction for such control period under §97.824(a) in an amount not less than the tons of total NO_x emissions for such control period from all CSAPR NO_x Ozone Season Group 2 units at the source.

Allowance transfer deadline means, for a control period in a given year, midnight of March 1 (if it is a business day), or midnight of the first business day thereafter (if March 1 is not a business day), immediately after such control period and is the deadline by which a CSAPR NO_x Ozone Season Group 2 allowance transfer must be submitted for recordation in a CSAPR NO_x Ozone Season Group 2 source's compliance account in order to be available for use in complying with the source's CSAPR NO_x Ozone Season Group 2 emissions limitation for such control period in accordance with §§97.806 and 97.824.

**C. 40 CFR Part 97 Subpart CCCC-CSAPR SO₂ Group 1 Trading Program
CSAPR SO₂ Group 1 Trading Program requirements (40 CFR 97.606)**

The Permittee shall comply with the provisions and requirements of §97.601 through §97.635

Note: §97.606(c) SO₂ emissions requirements. For CSAPR SO₂ Group 1 emissions limitation: As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall hold, in the source's compliance account, CSAPR SO₂ Group 1 allowances available for deduction for such control period under §97.624(a) in an amount not less than the tons of total SO₂ emissions for such control period from all CSAPR SO₂ Group 1 units at the source.

Allowance transfer deadline means, for a control period in a given year, midnight of March 1 (if it is a business day), or midnight of the first business day thereafter (if March 1 is not a business day), immediately after such control period and is the deadline by which a CSAPR SO₂ Group 1 allowance transfer must be submitted for recordation in a CSAPR SO₂ Group 1 source's compliance account in order to be available for use in complying with the source's CSAPR SO₂ Group 1 emissions limitation for such control period in accordance with §§97.606 and 97.624.

Compliance Demonstration

The Permittee shall comply with the monitoring, record keeping and reporting requirements found in §97.406, §97.430, §97.431, §97.432, and §97.433 for the CSAPR NO_x Annual Trading Program; §97.806, §97.830, §97.831, §97.832, and

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§97.833 for the CSAPR NO_x Ozone Season Group 2 Trading Program; and §97.606, §97.630, §97.631, §97.632, and §97.633 for CSAPR SO₂ Group 1 Trading Program.

The Permittee operates continuous emission monitoring system (CEMS) pursuant to 40 CFR Part 75, Subpart B (for SO₂ monitoring) and 40 CFR Part 75, Subpart H (for NO_x monitoring).

II Emissions Unit EU-2: One (1) limestone truck unloading operation controlled by a baghouse. The unloading occurs randomly over a 12-hour period during a day for about 225 days per year.

A. Visible Emissions

1. **COMAR 26.11.06.02C (1)**, which prohibits the discharge of visible emissions from any installation other than water in an uncombined form, which is greater than 20% opacity." [Note: This applies to baghouse discharge].

Exception - COMAR 26.1106.2(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:

- a. The visible emissions are not greater than 40 percent opacity; and
- b. The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period.

Note: The same monitoring, record keeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and COMAR 26.11.06.02C (1).

2. **40 CFR §60.672(a)**, which prohibits the discharge into the atmosphere from any transfer point on belt conveyors or from any other affected facility, any stack emissions which exhibit greater than 7 percent opacity for dry control devices.
3. **40 CFR §60.672(b)**, which prohibits the discharge into the atmosphere from any transfer point on belt conveyors or from any other affected facility, any fugitive emissions, which exhibit greater than 10 percent opacity, except as provided in paragraphs (d), (e) and (f) of **§60.672**.

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4. **40 CFR 60 Part 60.672(e)**, which requires any transfer points on a conveyors belt or any other affected facility enclosed in a building to comply with the emissions limits in paragraph (a) and (b) of **§60.672** or the building enclosing the affected facility or facilities must comply with the emission limits of §60.672(e)(1) and (2).

Compliance Demonstration:

The Permittee shall perform a visual observation of the baghouse exhaust and the doors, windows, vents, or other openings in the building for visible emissions once a month for 1 minute. The observations shall be made while affected facilities are operating. If emissions in the exhaust gases are visible, the Permittee shall perform the following:

1. Inspect all process and/or control equipment that may affect visible emissions;
2. Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases or fugitive emissions from the building openings are eliminated;
3. Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and
4. If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions. **[Authority: COMAR 26.11.03.06C]**

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations" **[Authority: COMAR 26.11.03.06C]**.

Rationale:

Visible emissions from the unloading operations are not likely if equipment including the baghouse is properly maintained. A preventative maintenance plan is required to demonstrate compliance with the particulate standard. The periodic observations for the presence of visible emissions will document that the preventative maintenance plan is sufficient.

Discussion:

AES performs monthly visible emission observations as required, maintains copies of visible emission observations on-site, and reports any incidents of excess emissions to ARA. Compliance with the standards has been observed during inspections by the Department and no violations have been reported in the compliance monitoring and certification reports.

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B. Particulate Emissions from confined sources (baghouse)

1. **40 CFR §60.672(a)**, which prohibits stack emissions, which contain particulate matter in excess of 0.022 gr/scfd (0.05 g/dscm).
2. **PSD Approval No. 94-01A**, which required the limestone unloading baghouse to be designed to achieve a particulate matter emissions limit of 0.002 grains/actual cubic feet.

Note: 1 and 2 apply to the baghouse exhaust. For particulate emissions from unconfined sources see Table IV – 10 for requirements relating to fugitive emissions from limestone unloading operations. The same monitoring, record keeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and the PSD limit.

Compliance demonstration:

The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed. The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. **[Authority: Periodic Monitoring-COMAR 26.11.03.06C].**

Rationale:

The baghouse purchased was designed to meet a 0.002 gr/scfd. If preventative maintenance is performed, there is a high likelihood that the baghouse will continue to meet the standards. PM emissions from the limestone unloading operations are certified at about 3 pounds per day.

Discussion:

AES developed a preventive maintenance plan in April of 1999. The plan was reviewed in 2006. Logs of work performed as a result of the maintenance plan are kept on a facility-wide computer system that generates and tracks work orders.

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III Emissions Units EU-3 and EU-4: Two (2) parallel limestone crushing and drying systems, each comprising of one Raymond roller mill rated at 20 tons per hour, one (1) Eclipse natural gas and No.2 oil-fired limestone dryer rated at 5 MMBtu/hr. heat input, and a conveyor rated at 30 tons per hour capacity. Emissions are controlled with a bag house.

A. Visible Emissions

1. **COMAR 26.11.06.02C(1)**, which prohibits the discharge of visible emissions from any installation other than water in an uncombined form, which is greater than 20% opacity. [Baghouse exhaust on Raymond mill and conveyor].

Exception- COMAR 26.1106.2C(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:

- a. The visible emissions are not greater than 40 percent opacity; and
 - b. The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period.
2. **40 CFR §60.672(a) – NSPS Subpart OOO**, which prohibits the discharge into the atmosphere from any transfer point on belt conveyors or from any other affected facility, any stack emissions which exhibit greater than 7 percent opacity. [Raymond mill controlled with a baghouse].
 3. **40 CFR 60 Part 60.672(e) - NSPS Subpart OOO**, which requires any transfer point on a conveyor belt or any other affected facility in an enclosed building to comply with the emissions limits of paragraph (a) and (b) of **§60.672** or the building enclosing the affected facility or facilities must comply with the emission limits of §60.672(e)(1) and (2).

Note: The same monitoring, record keeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and COMAR 26.11.06.02C.

Compliance Demonstration:

The Permittee shall visually inspect the exhaust gases from each baghouse stack when the drying and crushing system is operating for visible emissions once a month for 1 minute and shall record the results of each observation. If visible emissions are observed, the Permittee shall perform the following:

- a. Inspect all process and/or control equipment that may affect visible emissions;

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- b. Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated;
- c. Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and
- d. If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions. **[Authority: COMAR 26.11.03.06]**

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations" **[Authority: COMAR 26.11.03.06C(7)]**.

Rationale:

Visible emissions from the unloading operations are not likely if the equipment including the baghouse is properly maintained. A preventative maintenance plan is required to demonstrate compliance with the particulate standard. The periodic observations for the presence of visible emissions will document that the preventative maintenance plan is sufficient.

Discussion:

AES performs monthly visible emission observations as required, maintains copies of visible emission observations on-site, and reports any incidents of excess emissions to ARA. Compliance with the standards has been observed during inspections by the Department and no violations have been reported in the compliance monitoring and certification reports.

B. Particulate Emissions

1. **40 CFR §60.672(a) - NSPS Subpart OOO**, which prohibits stack emissions which contain particulate matter in excess of 0.022 gr/scfd (0.05 g/dscm).
2. **PSD No. 94-01A**, which requires the Raymond mill/dryer system to be designed to meet a particulate emissions limit of 0.055 lbs./MMBtu heat input.
3. **PSD No. 94-01A**, which requires the fabric filter baghouse on the mill/dryer system to be designed to meet a limit of 0.002 grains/actual cubic feet.

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Note: The same monitoring, record keeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and the PSD limit.

Compliance demonstration:

The Permittee shall develop and maintain a preventative maintenance plan, for each baghouse, that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed. The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. The Permittee shall submit maintenance records when requested by the Department. **[Authority: Periodic Monitoring: COMAR 26.11.03.06C].**

Rationale:

PSD compliance testing that was performed in February of 2000. The results showed a particulate emissions concentration of 0.032 lb./MMBtu or 0.0022 gr/scfd on a 3hr. average for dryer 1 and 0.051 lb./MMBtu or 0.0019 gr/scfd for dryer 2. It is expected that with continued good operating practices and a viable preventative maintenance plan, the units will continue to meet the standard. Certified PM emissions are about 3 pounds per day or 1100 pounds per year.

Discussion:

AES developed a preventive maintenance plan in April of 1999. Logs of work performed as a result of the maintenance plan are kept on a facility-wide computer system that generates and tracks work orders.

C. Sulfur Dioxide Emissions

1. **PSD Approval No. 94-01A**, which requires the Raymond mill/limestone dryers to be designed to achieve an SO₂ emissions limit of 0.052 lbs./MMBtu of heat input.
2. **PSD Approval No. 94-01A**, which limit the maximum sulfur content of the fuel to 0.05% by weight.

Note: The SO₂ limit of 0.052 lbs./MMBtu is equivalent to 0.05% sulfur content by weight.

Compliance Demonstration:

The Permittee shall obtain fuel supplier certification indicating that the fuel oil complies with the limitation on sulfur content of the fuel oil. The Permittee shall

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retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation. The Permittee shall report the results of sulfur in fuel certification to the Department upon request. **[Authority: Periodic Monitoring-COMAR 26.11.03.06C]**

Rationale:

The use of fuel supplier certifications to demonstrate compliance with sulfur content in fuel limit for distillate fuel oils has been found to be a sufficient strategy. The annual certified emissions of SO₂ from the limestone dryers are about 45 pounds (0.14 lbs./day).

Discussion:

AES obtains a certification of the sulfur content of the fuel oil from its supplier, maintains records of certification of the sulfur content, and reports the results of sulfur in fuel certification to the Department upon request. Inspections of records by the Department have always found compliance.

D. NOx Emissions

1. **PSD Approval # 94-01A**, which requires the Raymond mill and limestone dryers to be designed to achieve a NOx emissions limit of 0.24 lbs./MMBtu of heat input.
2. **COMAR 26.11.09.08B (1) (c)**, which sets emission standards in pounds of NOx per MMBtu of heat input. For Gas/Oil-fired units the limit is 0.25 lbs./MMBtu.

Compliance Demonstration:

The Permittee shall perform a combustion analysis for each Eclipse dryer at least once each calendar year and optimize combustion based on analysis. The Permittee shall maintain records of the annual combustion analyses. The Permittee shall report the results of combustion analyses to the Department upon request. **[Authority: Periodic Monitoring- COMAR 26.11.03.06C]**

Rationale:

The initial performance test results reported NOx emissions of 0.13 lb./MMBtu for mill/dryer #1 and 0.14 lb./MMBtu for mill/dryer #2. If the units are maintained and the combustion performance of the burners on the dryer checked annually, the units are likely to continue to comply. The actual certified emissions of NOx from the two-mill/dryer systems are about 800 pounds per year (2 lbs./day).

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Discussion:

The Permittee performs a combustion analysis for each Eclipse dryer at least once each calendar year, optimizes combustion based the analysis, and maintains records of the annual combustion analysis. The Permittee performed combustion analysis and optimization on the Eclipse dryers on September 13, 2007.

E. CO and VOC Emissions

PSD Approval No. 94-01A, which requires the Raymond mill/ limestone dryers to be designed to achieve emissions as follows:

CO: 0.068 lbs./MMBtu of heat input
VOC: 0.002 lbs./MMBtu of heat input

These BACT limits are based on a BACT analysis for the two-**parallel** limestone-drying systems. The ACFB boiler is a PSD source subject to PSD review and hence a BACT analysis was required. Since CO and VOC emissions are emitted from the ACFB at greater than the significant emissions level, all ancillary equipment, which emits these pollutants, were subject to a BACT review.

For the two parallel limestone drying systems, the BACT determination for CO and VOC is the dryer's designed combustion control system, hence the CO and VOC limit is simply the unit's designed emissions rate.

Compliance Demonstration:

The Permittee shall properly operate and maintain the Raymond mill/ limestone dryers; and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance. The Permittee shall maintain log of maintenance performed on the Raymond mill/ limestone dryer systems that relate to combustion performance. [**Authority: Periodic monitoring- COMAR 26.11.03.06**]

Rationale:

The initial performance test results in 2000 reported CO emissions of 0.47 lbs./MMBtu for mill/dryer #1 and 0.26 lbs./MMBtu for mill/dryer #2. The initial performance test results reported VOC emissions of 0.001 lbs./MMBtu for both mill/dryer #1 and #2. It is expected that with proper operations and good preventative maintenance, the units will continue to meet the standard. The annual certified emissions for these pollutants are as follows: CO - 430 pounds (0.53 lbs./day) and VOC - 32 pounds (0.01 lbs./day).

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Discussion:

AES developed a preventive maintenance plan in April of 1999. The plan was most recently reviewed in 2012 as part of the June 2012 full compliance evaluation. Logs of work performed as a result of the maintenance plan are kept on a facility-wide computer system that generates and tracks work orders.

F. Operating Limits

PSD Approval # 94-01A, which limits the combined annual operating hours for both to 8760 hours on a rolling basis.

Compliance demonstration:

The Permittee shall keep track of the hours of operation for each limestone dryer so as to determine compliance with the limitation of PSD Approval # 94-01A. The Permittee shall keep monthly records, which show the daily operating hours of each dryer. The Permittee shall submit the hours of operation of the two limestone dryers as an attachment to the annual emissions certification report
[Authority: Periodic Monitoring- COMAR 26.11.03.06C]

Discussion:

The Permittee tracks and maintains records of the hours of operation for each limestone dryer. Permittee submits records along with the facility's annual emission certification report.

IV Emissions Unit : EU-5: Limestone Storage Silo.

The particulate matter emissions from the silo are controlled with a baghouse.

A. Visible Emissions

1. **COMAR 26.11.06.02C (1)** which limits the discharge of visible emissions from any installation other than water in an uncombined form, which is greater than 20% opacity.

Exception- COMAR 26.1106.2C(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:

- a. The visible emissions are not greater than 40 percent opacity; and

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- b. The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period.
2. **40 CFR §60.672(a) and (f)** – which prohibits stack emissions which exhibit greater than 7 percent opacity from a baghouse that controls emissions from a single enclosed storage bin.

Note: The monitoring, record keeping, and reporting strategy to demonstrate compliance with the NSPS opacity standard will be used for the compliance demonstration of the COMAR opacity standard.

Compliance Demonstration:

The Permittee shall visually inspect the exhaust gases from each baghouse stack when a silo is being filled to look for visible emissions once a month for 1 minute and shall record the results of each observation.

If emissions in the exhaust gases are visible, the Permittee shall perform the following:

- a. Inspect all process and/or control equipment that may affect visible emissions;
- b. Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated;
- c. Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and
- d. If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions. **[Authority: COMAR 26.11.03.06C].**

The Permittee shall maintain a record of the results of all visual emission observations **[Authority: Periodic Monitoring-COMAR 26.11.03.06C].**

The Permittee shall report incidents of excess visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations”. **[Authority: COMAR 26.11.03.06C].**

Rationale:

Baghouses that are properly maintained rarely have visible emissions in the exhaust gases. The Permittee is required to implement a preventative maintenance plan.

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Discussion:

AES performs monthly visible emission observations as required, maintains copies of visible emission observations on-site, and reports any incidents of excess emissions to ARA. Compliance with the standards has been observed during inspections by the Department and no violations have been reported in the Permittee's compliance monitoring and compliance certification reports.

B. Particulate Emissions

1. **PSD Approval No. 94-01A** – which required the fabric filter baghouse to be designed to achieve a particulate matter emissions limit of 0.003 grains/actual cubic feet.
2. **40 CFR §60.672(a) (1)** – NSPS Subpart OOO, which prohibits stack emissions that contain particulate matter in excess of 0.022 gr/dscf (0.05 g/dscm).

Note: The monitoring, record keeping and reporting strategy to demonstrate compliance with the PSD BACT limit will be used for the compliance demonstration of the NSPS standard.

Compliance Demonstration:

The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed. The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. The Permittee shall submit maintenance records when requested by the Department. **[Authority: Periodic Monitoring - COMAR 26.11.03.06C].**

Rationale:

The baghouse purchased was designed to meet a 0.003 gr/acf. If preventative maintenance is performed, there is a high likelihood that the baghouse will continue to meet the standards. The annual certified emissions from the limestone storage silo baghouse are about 580 pounds (1.8 lbs./day).

Discussion:

AES developed a preventive maintenance plan in April of 1999. The plan was most recently reviewed in 2012 as part of the June 2012 full compliance evaluation. Logs of work performed as a result of the maintenance plan are kept on a facility-wide computer system that generates and tracks work orders.

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V. Emissions Unit Number(s): EU-6, EU-7, & EU-8

EU-6: Coal truck unloading operation controlled by a baghouse.

EU-7: Coal processing operation comprising of two crushers, two vibrating feeders, one surge bin, two enclosed reclaim conveyors, one enclosed stockpile conveyor and one enclosed transfer conveyor, each located inside coal crusher building. Emissions are controlled by a baghouse.

EU-8: Coal storage system consisting of four (4) coal storage silos, controlled by a baghouse.

A. Visible Emissions

1. **COMAR 26.11.06.02C(1)**, which limits the discharge of visible emissions from any installations, other than water in an uncombined form, which is greater than 20% opacity

Exception- COMAR 26.1106.2C(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:

- a. The visible emissions are not greater than 40 percent opacity; and
 - b. The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period.
2. **40 CFR §60.254(a) – NSPS Subpart Y**, which prohibits visible emissions from the stack, which exhibit greater than 20 percent opacity.

Note: The monitoring, record keeping, and reporting strategy to demonstrate compliance with the NSPS opacity standard will be used for the compliance demonstration of the COMAR opacity standard.

Compliance Demonstration:

The Permittee shall visually inspect the exhaust gases from each baghouse stack when coal is being handled or crushed to look for visible emissions once a month for 1 minute and shall record the results of each observation.

If emissions in the exhaust gases are visible, the Permittee shall perform the following:

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- a. Inspect all process and/or control equipment that may affect visible emissions;
- b. Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated;
- c. Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and
- d. If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions.

The Permittee shall maintain a record of the results of all visual emission observations. **[Authority: Periodic Monitoring - COMAR 26.11.03.06C].**

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations" **[Authority: COMAR 26.11.03.06C].**

Rationale:

Baghouses that are properly maintained rarely have visible emissions in the exhaust gases. The Permittee is required to implement a preventative maintenance plan.

Discussion:

AES performs monthly visible emission observations as required, maintains copies of visible emission observations on-site, and reports any incidents of excess emissions to ARA. Compliance with the standards has been observed during inspections by the Department and no violations have been reported in the Permittee's compliance monitoring and compliance certification reports.

B. Particulate Emissions from confined sources (baghouses)

PSD # 94-01, which requires the baghouses to be designed to achieve particulate emissions limit of 0.003 gr/acf.

Note: Particulate emissions from unconfined sources. See Table IV-9 of Permit for requirements relating to fugitive emissions from coal unloading and storage operations.

Compliance Demonstration:

The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for

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completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates maintenance was performed. The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. The Permittee shall submit maintenance records when requested by the Department. **[Authority: Periodic monitoring -COMAR 26.11.03.06C].**

Rationale:

The baghouses purchased were designed to meet a 0.003 gr/acf. If preventative maintenance is performed, there is a high likelihood that the baghouses will continue to meet the standards. The annual certified emissions from the coal truck unloading are about 3000 pounds (9 lbs./day), from the coal crushing and reclaim about 900 pounds (3 lbs./day), and the coal storage silos about 1400 pounds (4 lbs./day). Note that these totals include fugitive emissions as well as the baghouse emissions.

Discussion:

AES developed a preventive maintenance plan in April of 1999. The plan was reviewed in 2006. Logs of work performed as a result of the maintenance plan are kept on a facility-wide computer system that generates and tracks work orders.

VI. Emissions Unit Number(s): EU-9, EU-10, & EU-11

EU-9: Bed ash day bin equipped with a baghouse.

EU-10: Bed ash storage silo equipped with a baghouse.

EU-11: Fly ash storage silo equipped with a baghouse.

A. Visible Emissions Limitations

COMAR 26.11.06.02C (1), which limits the discharge of visible emissions from any installation other than water in an uncombined form, which is greater than 20% opacity.

Exception- COMAR 26.1106.2C(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:

a. The visible emissions are not greater than 40 percent opacity; and

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- b. The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period.

Compliance Demonstration:

The Permittee shall visually inspect the exhaust gases from each baghouse stack when a bin/silo is being filled to look for visible emissions once a month for 1 minute and shall record the results of each observation.

If emissions in the exhaust gases are visible, the Permittee shall perform the following:

- a. Inspect all process and/or control equipment that may affect visible emissions;
- b. Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated;
- c. Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and
- d. If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions.
- e. The Permittee shall maintain a record of the results of all visual emission observations. **[Authority: Periodic Monitoring - COMAR 26.11.03.06C]**

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations" **[Authority: COMAR 26.11.03.06C(7)]**

Rationale:

Baghouses that are properly maintained rarely have visible emissions in the exhaust gases. The Permittee is required to implement a preventative maintenance plan.

Discussion:

AES performs monthly visible emission observations as required, maintains copies of visible emission observations on-site, and reports any incidents of excess emissions to ARA. Compliance with the standards has been observed during inspections by the Department and no violations have been reported in the Permittee's compliance monitoring and compliance certification reports.

B. Particulate Emissions

PSD Approval # 94-01A, which requires the fabric filter baghouses to be designed to achieve a particulate emissions limit of 0.003 grains/actual cubic feet.

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Note: Particulate Emissions from unconfined sources. See Table IV – 10 for requirements relating to fugitive emissions from the ash handling and load out operations.

Compliance Demonstration:

The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed. The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. The Permittee shall submit maintenance records when requested by the Department. **[Authority: Periodic Monitoring - COMAR 26.11.03.06C].**

Rationale:

The baghouses purchased were designed to meet a 0.003 gr/acf. If preventative maintenance is performed, there is a high likelihood that the baghouses will continue to meet the standards. The annual certified emissions from the bed ash day bin with baghouse are about 400 pounds (1.2 lbs./day), from the bed ash storage silo with baghouse about 300 pounds (1.2 lbs./day), and the fly ash storage silo with baghouse silos about 800 pounds (2.5 lbs./day). Note that these totals include fugitive emissions as well as the baghouse emissions.

Discussion

AES developed a preventive maintenance plan in April of 1999. The plan was reviewed in 2006. Logs of work performed as a result of the maintenance plan are kept on a facility-wide computer system that generates and tracks work orders.

VII Emissions Unit Number(s): EU-12

EU-12: One diesel engine driven emergency boiler Feed Water Pump rated at 525 bhp.

A. Visible Emissions :

1. **COMAR 26.11.09.05E (2)** Emissions During Idle Mode. A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

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2. **COMAR 26.11.09.05E (3)** Emissions During Operating Mode. A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.
3. **COMAR 26.11.09.05E (4)** - Exceptions:
 - a. Section E (2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
 - b. Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
 - i. Engines that are idled continuously when not in service: 30 minutes;
 - ii. All other engines: 15 minutes.
 - c. Section E (2) and (3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics.

Compliance Demonstrations:

The Permittee shall properly operate and maintain the engine; and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance. The Permittee shall maintain log of maintenance performed on the diesel engine pump that relates to combustion performance. **[Authority: Periodic Monitoring – COMAR 26.11.03.06C].**

The Permittee shall report incidents of visible emissions in accordance with condition 4 of Section III "Report of Excess Emissions and Deviation. **[Authority: COMAR 26.11.03.06C].**

Engines that burn distillate oil and are properly maintained will not violate the visible emissions limitations of COMAR. This engine powers the emergency boiler feed water pump and as such it is used only when the main boiler feed water pump is unavailable. Thus far, AES has had no need for it. The only emissions are from times the engine is operated to perform maintenance and reliability testing. The annual certified emissions are about 7 pounds (0.15 lbs./day).

Rationale:

It is expected that with proper operations and good preventative maintenance, the units will continue to meet the standard.

Discussion:

Preventative maintenance is performed regularly on the engine. The Permittee maintains records of maintenance performed.

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B. Particulate Matter Emissions Standard

PSD Approval No. 94-01A which requires the emergency boiler feed water pump to be designed to achieve a particulate emissions limit of 0.341 lb./MMBtu of heat input.

Compliance Demonstrations:

The Permittee shall properly operate and maintain the engine; and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance. The Permittee shall maintain log of maintenance performed on the diesel engine pump that relates to combustion performance. **[Authority: Periodic Monitoring – COMAR 26.11.03.06C].**

Rationale:

The initial performance test in 2000 showed a result of 0.079 lbs./MMBtu. It is expected that with proper operations and good preventative maintenance, the units will continue to meet the standard. Annual certified PM emissions are about 7 pounds (0.15lbs/day).

Discussion:

Preventative maintenance is performed regularly on the engine. The Permittee maintains records of maintenance performed.

C. Sulfur Dioxide Emissions:

1. **PSD Approval NO. 94-01A**, which requires the emergency boiler feed water pump to be designed to achieve a sulfur dioxide emissions limit of 0.052 lbs./MMBtu of heat input.
2. **PSD Approval No. 94-01A**, which limits the maximum sulfur content of the fuel to 0.05% by weight.

Note: The SO₂ limit of 0.052 lbs./MMBtu is equivalent to 0.05% by weight.

This BACT limit is based on a BACT analysis for the emergency boiler feed pump engine. The ACFB boiler is a PSD source subject to PSD review and hence a BACT analysis was required. Since SO₂ is emitted from the ACFB at greater than the significant emissions level, all ancillary equipment, which emits these pollutants, were subject to a BACT review.

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For the emergency boiler feed pump engine, the BACT determination for SO₂ is to burn fuel oil with limit in sulfur content of 0.05 weight percent or less. This is equivalent to 0.052lbs/MMBtu of heat input.

Compliance Demonstration:

The Permittee shall obtain fuel supplier certification indicating that the fuel oil complies with the limitation on sulfur content of the fuel oil. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least five years. The Permittee shall report the results of sulfur in fuel certification to the Department upon request. **[Authority: Periodic Monitoring-COMAR 26.11.03.06C]**

Rationale:

The use of fuel supplier certifications to demonstrate compliance with a sulfur content in fuel limit for distillate fuel oils has been found to be a sufficient strategy. The annual certified emissions of SO₂ from the emergency boiler feed water pump are about 2 pounds (0.04 lbs./day).

Discussion:

AES obtains a certification of the sulfur content of the fuel oil from its supplier, maintains records of certification of the sulfur content, and reports the results of sulfur in fuel certification to the Department upon request. Inspections of records by the Department have always found compliance.

D. NOx Emissions:

1. **COMAR 26.11.09.08G**, which requires a person who owns or operates fuel burning equipment with a capacity factor of 15 percent or less to:
 - a. Provide certification of the capacity factor of the equipment to the Department in writing;
 - b. For fuel-burning equipment that operates more 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
 - c. Maintain the results of the combustion analysis at the site for at least five years and make these results available to the Department and EPA upon request;
 - d. Require each operator of an installation except combustion turbine, to attend at least once every three years, operator training program on combustion optimization that are sponsored by the Department, U.S. EPA, or equipment vendors; and
 - e. Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.

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2. **COMAR 26.11.09.08K(3)** which requires the Permittee to maintain annual fuel use records on site for at least five years and make records available to the Department upon request.
3. **PSD Approval No. 94-01A**, which requires the emergency boiler feed water pump engine to be designed to achieve a limit of 3.439 lb./MMBtu.

Compliance Demonstration:

The Permittee shall properly operate and maintain the engine; and maintain an operations manual and preventive maintenance plan that relate to combustion performance. The Permittee shall maintain log of maintenance performed on the diesel engines pump. **[Authority: Periodic Monitoring - COMAR 26.11.03.06C].**

Rationale:

The initial performance test in 2000 showed a result of 2.49 lbs./MMBtu. If the engine is properly maintained, the engine should continue to meet its designed NOx emissions rate. The engine only operates for about 25 hours per year in order to test its reliability. The annual certified emissions of NOx from the emergency boiler feed water pump engine are about 240 pounds (5 lbs./day).

Discussion

The Permittee maintains records of preventative maintenance performed. Annual fuel use records are maintained.

E. CO and VOC Emissions:

PSD Approval # 94-01A, which requires the emergency boiler feed water pump engine to be designed to achieve emissions as follows:

CO:	0.902 lbs./MMBtu of heat input
VOC:	0.098 lbs./MMBtu of heat input

These BACT limits are based on a BACT analysis for the emergency boiler feed water pump engine. The ACFB boiler is a PSD source subject to PSD review and hence a BACT analysis was required. Since CO and VOC emissions are emitted from the ACFB at greater than the significant emissions level, all ancillary equipment, which emits these pollutants, were subject to a BACT review.

For the emergency boiler feed water pump engine, the BACT determination for CO and VOC is the engine's designed combustion specifications, hence the CO

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and VOC limit is simply the engine's designed emissions rates of 0.068 lbs./MMBtu of heat input and 0.002 lbs./MMBtu of heat input respectively.

Compliance Demonstration:

The Permittee shall properly operate and maintain the engine; and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance. The Permittee shall maintain log of maintenance performed on the diesel engine that relates to combustion performance. **[Authority: Periodic Monitoring - COMAR 26.11.03.0**

Rationale:

The initial performance test in 2000 showed a result for CO of 0.283 lbs./MMBtu and for VOC of 0.021 lbs./MMBtu. If the diesel feed water pump engine is maintained, the engine should continue to meet its designed CO and VOC emissions rate. The engine has only operated for about 25 hours per year in order to test its reliability. The annual certified emissions of CO from the emergency boiler feed water pump engine are about 25 pounds (0.5 lbs./day). The annual certified emissions of VOC from the emergency boiler feed water pump engine are about 2 pounds (0.04 lbs/day).

Discussion:

The Permittee maintains records of preventative maintenance performed.

F. Operational Limitations:

The operation of the emergency boiler feed water pump during non-emergency operations is limited to one hour per day and 200 hours per 12 months (rolled monthly). **[Authority: PSD Approval No. 94-01A]**

Compliance Demonstration:

The Permittee shall maintain records of the hours of operation of the emergency boiler feed water pump engine for 5 years. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. **[Authority: PTC No. 001-4-0080 N].**

Rationale:

The engine has been operated in the past years for about 25 hours per year in order to test its reliability.

Discussion

AES maintains records of the hours of operation of the diesel engine pump on site and makes the records available to the Department in the annual emissions certification report.

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VIII. Emissions Unit Number(s): EU-17 and EU-18

EU-17 and EU-18: Two (2) natural gas-fired space heaters (Temp-Heat Model THP-4500) each rated at 4.5 MMBtu/hr. for providing comfort heat in the boiler room.

These space heaters exhaust directly inside the building. The heaters operate about 25 days per year.

The certified emissions from the heaters are about as follows: PM10- 5 lbs./year, SO₂-0.3 lbs. per year, NO_x-324 lbs./year, CO-51 lbs./year, and VOC-3 lbs./year.

There are no COMAR particulate matter or sulfur dioxide standards for fuel burning equipment that burn natural gas. Since the heaters exhaust directly into a building, no opacity standard is applicable.

A. NO_x Emissions (NO_x RACT)

1. **COMAR 26.11.09.08F(1)**, which requires the Permittee or operator of a space heater as defined in regulation .01B of this chapter to:
 - a. Submit to the Department a list of each affected installation on the premises and the type of fuel used in each installation;
 - b. Develop an operating and maintenance plan to minimize NO_x emissions based on the recommendations of equipment vendors and other information including the source's operating and maintenance experience;
 - c. Implement the operating and maintenance plans and maintain the plans at the premises for review upon request by the Department;
 - d. Require installation operators to attend in-state operators training program once every three years on combustion optimization that are sponsored by the Department, U.S. EPA, or equipment vendors; and
 - e. Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.

Note: COMAR 26.11.09.08 states that “for the purpose of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.”

2. **COMAR 26.11.09.08F(2)**, which requires the Permittee or operator who owns or operates an installation that no longer qualifies as a space heater

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to inform the Department not later than 60 days after the date when the fuel burning equipment did not qualify and shall meet the applicable fuel burning equipment RACT requirement in this regulation.

3. **COMAR 26.11.09.08K(3)**, which requires the Permittee to maintain annual fuel use records on site for at least five years and make records available to the Department upon request.

Compliance Demonstration:

The Permittee shall develop and implement the operating and maintenance plan and maintain the plan at the premises for review upon request by the Department **[Authority: COMAR 26.11.09.08F (1)(c)]**.

The Permittee shall maintain:

- (a) The operating and maintenance plan at the premises for review by the Department upon request. **[Authority: COMAR 26.11.09.08F (1) (c)]**
- (b) Records of the quantity of fuel burned each month and calculation of heat input in a manner that the Permittee can determine whether the units no longer qualify as a "Space Heater" **[Authority: COMAR 26.11.03.06C]**.
- (c) Records of the training program attendance for each operator at the site **[Authority: COMAR 26.11.09.08F (1) (e)]**.
- (d) Maintain annual fuel use records on site for at least five years and make records available to the Department upon request **[Authority: COMAR 26.11.09.08K(3)]**

The Permittee shall:

- (a) Inform the Department no later than 60 days after the date when the units no longer qualify as a space heater and shall identify an alternative NOx RACT requirement under COMAR 26.11.09.08 with which the source will comply **[Authority: COMAR 26.11.09.08F(2)]**.
- (b) Submit a list of trained operators and training attendance records to the Department upon request. **[Authority: COMAR 26.11.09.08F (1) (e)]**.

Discussion

AES has a contractor who performs preventative maintenance on the units. The Permittee complies with the required recordkeeping and reporting requirements.

B. Operational Requirement

The Permittee shall only burn natural gas in the space heaters unless the Permittee applies for and receives an approval or permit from the Department to burn an alternate fuel. **[Authority: COMAR 26.11.09.04]**

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Compliance Demonstration:

The Permittee shall maintain records of the type of fuel burned. **[Authority: COMAR 26.11.02.19C(1)(c)]**. The Permittee shall submit records of fuel use as an attachment to the annual emissions certification. **[Authority: COMAR 26.11.02.19C(2)]**.

Discussion:

These units are programmed to operate (on and off) as needed, can only burn natural gas. The Permittee maintains annual fuel use records for these units and submits records as required.

IX. Emissions Unit Number(s): EU-19

EU-19: One (1) automated coal blending system comprising of a 45-ton feed hopper and a 30-in drag-chain conveyor (Permit No. 011-0203-6-0304).

A. Visible Emissions

1. **COMAR 26.11.06.02C(1)**, which limits the discharge of visible emissions from any installations, other than water in an uncombined form, which is greater than 20% opacity

Exception- COMAR 26.1106.2C(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:

- a. The visible emissions are not greater than 40 percent opacity; and
 - b. The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period.
2. **40 CFR §60.254(b)(1)** – On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008 must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 10 percent opacity or greater.

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Note: The monitoring, record keeping, and reporting strategy to demonstrate compliance with the NSPS opacity standard will be used for the compliance demonstration of the COMAR opacity standard.

3. **40 CFR §60.255(h)** – The Permittee, Owner or Operator of each affected coal truck dump operation that commenced construction, reconstruction, or modification after April 28, 2008, must meet the requirements specified in 40 CFR §60.255(h)(1) through (3).

Compliance Demonstration:

The Permittee shall visually inspect the exhaust gases from each baghouse stack when coal is being handled or crushed for visible emissions once a month for 1 minute and shall record the results of each observation.

If emissions in the exhaust gases are visible, the Permittee shall perform the following:

- a. Inspect all process and/or control equipment that may affect visible emissions;
- b. Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated;
- c. Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and
- d. If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions. **[Authority: COMAR 26.11.03.06C].**

The Permittee shall maintain in a logbook (written or electronic) on-site for at least 5 years and shall be made available to the Department upon request. The logbook shall record the following: (1) The manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer recommendation, if any, shall be noted. (2) The date and time of required periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions. Results from these actions shall be noted. (3) The amount and type of coal processed each calendar month. **[Authority: 40 CFR §60.258(a)].**

The Permittee shall maintain a record of the results of all visual emission observations. The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations" **[Authority: COMAR 26.11.03.06C].**

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The Permittee shall conduct the performance tests required in §60.8 using the methods identified in §60.257 to demonstrate compliance with the applicable emissions standards in this subpart as specified in paragraphs (b)(2) of §60.255 [Authority: 40 CFR §60.255(b)].

As an alternative to meeting the requirements in paragraph (b)(2) of §60.255, the Permittee may elect to comply with the requirements in paragraph (f)(1) of §60.255 [Authority: 40 CFR §60.255(f)].

The Permittee shall conduct an initial performance test using Method 9 of Appendix A-4 of this part according to the requirements in paragraphs (h)(1)(i) and (ii). [Authority: 40 CFR §60.255(h)].

(i) The Permittee shall conduct opacity readings during the duration of three separate truck dump events. Each truck dump event commences when the truck bed begins to elevate and concludes when the truck bed returns to a horizontal position [Authority: 40 CFR §60.255(h)(1)(i)].

(ii) Compliance with the opacity limit is determined by averaging all 15-second opacity readings made during the duration of three separate truck dump events [Authority: 40 CFR §60.255(h)(1)(i)].

The Permittee shall conduct monthly visual observations of all process and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible. [Authority: 40 CFR §60.255(h)(2)].

The Permittee shall conduct a Performance test using Method 9 of Appendix A-4 of this part at least once every 5 calendar years for each affected facility [Authority: 40 CFR §60.255(h)(3)].

The Permittee shall maintain a record of the results of all visual emission observations and corrective actions taken to address exceedance including maintenance performed on each affected facility. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request [Authority: COMAR 26.11.03.06C and 40 CFR §60.258(a)(2)].

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations" [Authority: COMAR 26.11.03.06C and 40 CFR §60.258(a)(2)].

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Rationale:

Baghouses that are properly maintained rarely have visible emissions in the exhaust gases. The Permittee is required to implement a preventative maintenance plan.

AES developed a preventive maintenance plan in April of 1999. The plan was most recently reviewed in 2012 as part of the June 2012 full compliance evaluation. Logs of work performed as a result of the maintenance plan are kept on a facility-wide computer system that generates and tracks work orders.

Discussion:

AES performs monthly visible emission observations as required, maintains copies of visible emission observations on-site, and reports any incidents of excess emissions to ARA. Compliance with the standards has been observed during inspections by the Department and no violations have been reported in the Permittee's compliance monitoring and compliance certification reports.

AES performs all visible emission observations as required, maintains copies of visible emission observations on-site, and reports any incidents of excess emissions to ARA. Compliance with the standards has been observed during inspections by the Department and no violations have been reported in the Permittee's compliance monitoring and compliance certification reports.

B. Operating Requirements

The Permittee shall utilize water injection system or other necessary measures as frequently as necessary to prevent fugitive emissions and dust from becoming airborne in accordance with COMAR 26.11.06.03D.

Compliance Demonstration:

The Permittee shall maintain a log of the use of water injection system or other measures to prevent fugitive dust from becoming airborne on site for at least 5 years and shall be made available to the Department upon request [**Authority: COMAR 26.11.03.06C**].

The Permittee shall submit a log of the use of water injection system or other measures to prevent fugitive dust from becoming airborne upon request by the Department [**Authority: COMAR 26.11.03.06C**].

Rationale:

AES fugitive dust management plan was approved by ARA on April 28, 1999. AES has demonstrated that the use of water injection system can adequately address fugitive particulate emissions at the facility.

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Discussion

The Permittee maintains records of the use of water injection system at the facility and makes the records available to the Department upon request.

X. Emissions Unit Number(s):

Facility wide - Control of fugitive particulate emissions from storage piles, vehicular traffic at the site, and other sources including limestone unloading and handling operations, coal unloading and handling operations, and ash loading and handling operations.

A. Fugitive Particulate Emissions

1. **COMAR 26.11.06.03D** – “Particulate Matter from Materials Handling and Construction. A person may not cause or permit any material to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.”
2. The Permittee shall assure that no more than 203 trucks/day, comprised of coal, limestone, and CO₂, shall be permitted on-site for delivery.
[Reference: Permit to Construct No. 001-3-0127, 0136, & 0067A]

Compliance Demonstration:

The Permittee shall implement the facility’s written plan that addresses the management program for controlling fugitive dust from storage piles, vehicular traffic at the site, and other sources. The Permittee shall maintain on site a written plan that addresses the management program for controlling fugitive dust from storage piles, vehicular traffic at the site, and other sources. **[Authority: PTC # 001-3-0127 – Condition C-4.]**

The Permittee shall monitor and count the number of trucks on the site each day. The Permittee shall maintain a record of the number of trucks each day.
[Authority: COMAR 26.11.03.06C]

Discussion

AES fugitive dust management plan was approved by ARA on April 28, 1999. AES keeps a count of all trucks entering and leaving the facility. The total number of trucks delivering material has not exceeded the 203 trucks/day limit. The Permittee maintains all required records on site.

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ASBESTOS PROVISIONS - 40CFR 61, Subpart M – Not applicable

The facility does not have any asbestos materials on site.

Section 112(r), Accidental Releases

The Permittee has submitted a risk management plan as required under 112 (r).

1990 CAAA, Title IV, Acid Rain

The Permittee is not an affected source under the 1990 CAAA, Title IV Acid Rain Program. The Permittee is an independent power producer that had a qualifying power purchase agreement signed on January 15, 1988 which pre-dates the November 15, 1990 effective date of the 1990 amendments to the CAA.

Title VI, Ozone Depleting Substances

Not applicable, the Facility does not service or repair its window air-conditioning units.

Compliance Schedule

AES is currently in compliance with all applicable air quality regulations.

Permit Shield

AES requested that a permit shield be expressly included in the Permittee's Part 70 Permit. Permit shields are granted on an emission unit by emission unit basis. If an emission unit is covered by a permit shield, a permit shield statement will follow the emission unit table in Section IV - Plant Specific Conditions of the permit. In this case, a permit shield was granted for each emission unit covered by the permit.

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SECTION V INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

- (1) Space heaters utilizing direct heat transfer and used solely for comfort heat;
- (2) Water cooling towers and water-cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;
- (3) Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;
- (4) Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;
- (5) Equipment for washing or drying products fabricated from metal or glass, provided that no VOC is used in the process and that no oil or solid fuel is burned;
- (6) Containers, reservoirs, or tanks used exclusively for:
 - (a) No. 4 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;
 - (b) No. 1 Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;
 - (c) No. 1 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;
- (7) Charbroilers and pit barbecues as defined in COMAR 26.11.18.01 with a total cooking area of 5 square feet (0.46 square meters) or less;
- (8) Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks display, and kerosene fuel use;

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- (9) Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;
- (10) Laboratory fume hoods and vents;

For the following, attach additional pages as necessary:

- (11) Any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):

No. 1 Monoethanolamine Storage Tank

No. 1 Wastewater Storage Tank from CO₂ Production

No. 1 Hydrochloric Acid Tank

No. 1 Sulfuric Acid Storage Tank

- (12) Any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. 2 Anhydrous Ammonia Storage Tanks

No. 2 Sodium Hydroxide Storage Tanks

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SECTION VI STATE ONLY ENFORCEABLE CONDITIONS

This section of the permit contains state-only enforceable requirements. The requirements in this section will not be enforced by the U.S. Environmental Protection Agency. The requirements in this section are not subject to COMAR 26.11.03 10 - Public Petitions for Review to EPA Regarding Part 70 Permits.

1. **Applicable Regulations:**

COMAR 26.11.06.08 – Nuisance. “An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution.”

COMAR 26.11.06.09 - Odors. “A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created.”

Emissions Unit Number(s): E-1 Boiler Cont'd

E-1: One (1) Atmospheric Circulating Fluidized Bed Boiler (ACFB) with a designed rated capacity of 2070 MMBtu/hr. of heat input burning bituminous coal and No. 2 diesel fuel during start-up. **[3-0127]**

Applicable Standards/Limits:

COMAR 26.11.09.05. – Visible Emissions.

A. Fuel Burning Equipment.

(4) Fuel Burning Equipment Required to Operate a COM. The owner or operator of fuel burning equipment that is subject to the requirement to install and operate a COM shall demonstrate compliance with the applicable visible emissions limitation specified in §A(1) and (2) of this regulation as follows:

(a) For units with a capacity factor greater than 25 percent, until December 31, 2009, compliance is achieved if visible emissions do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 4 percent of the unit's operating time in any calendar quarter, during which time visible emissions:

(i) Do not exceed 40.0 percent opacity, except for 5.0 hours or 0.5 percent of the unit's operating time, whichever is greater;

(ii) Do not exceed 70.0 percent opacity for more than four (4) 6-minute periods, except that coal-fired units equipped with electrostatic precipitators may exceed 70.0 percent opacity for no more than 2.2 hours; and

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(iii) On any calendar day, do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 4.1 hours, during which time visible emissions do not exceed 40.0 percent opacity for more than 1.4 hours and do not exceed 70.0 percent opacity for more than two (2) six-minute periods;

(b) For units with a capacity factor greater than 25 percent, beginning January 1, 2010, compliance is achieved if visible emissions do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 2 percent of the unit's operating time in any calendar quarter, during which time visible emissions:

(i) Do not exceed 40.0 percent opacity, except for 5.0 hours or 0.5 percent of the unit's operating time, whichever is greater;

(ii) Do not exceed 70.0 percent opacity for more than four (4) six-minute periods, except that coal-fired units equipped with electrostatic precipitators may exceed 70.0 percent opacity for no more than 2.2 hours; and

(iii) On any calendar day, do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 4.1 hours, during which time visible emissions do not exceed 40.0 percent opacity for more than 1.4 hours and do not exceed 70.0 percent opacity for more than two 6-minute periods;

(c) For units with a capacity factor equal to or less than 25 percent that operate more than 300 hours per quarter, beginning July 1, 2009, compliance with the applicable visible emissions limitation in §A(1) and (2) of this regulation is achieved if, during a calendar quarter, visible emissions do not exceed the applicable standard for more than 20.0 hours, during which time visible emissions:

(i) Do not exceed 40.0 percent opacity for more than 2.2 hours;

(ii) Do not exceed 70 percent for more than four 6-minute periods; and

(iii) On any calendar day, do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 4.1 hours, during which time visible emissions do not exceed 40.0 percent opacity for more than 1.4 hours and do not exceed 70.0 percent opacity for more than two 6-minute periods; and

(d) For units with a capacity factor equal to or less than 25 percent that operate 300 hours or less per quarter, beginning July 1, 2009, compliance with the applicable visible emissions limitation in §A(1) and (2) of this regulation is achieved if, during a calendar quarter, visible emissions do not exceed the applicable standard for more than 12.0 hours, during which time visible emissions:

(i) Do not exceed 40.0 percent opacity for more than 2.2 hours;

(ii) Do not exceed 70.0 percent opacity for more than four 6-minute periods;
and

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(iii) On any calendar day, do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 4.1 hours, during which time visible emissions do not exceed 40.0 percent opacity for more than 1.4 hours and do not exceed 70.0 percent opacity for more than two 6-minute periods.

(5) Notwithstanding the requirements in §A(4) of this regulation, the Department may determine compliance and noncompliance with the visible emissions limitations specified in §A(1) and (2) of this regulation by performing EPA reference Method 9 observations.

(6) In no instance shall excess emissions exempted under this regulation cause or contribute to a violation of any ambient air quality standard in 40 CFR Part 50, as amended, or any applicable requirements of 40 CFR Part 60, 61, or 63, as amended. “

“B. Determining Violations.

(1) For each unit required to operate a COM pursuant to COMAR 26.11.01.10A(1)(a) and (b), each day during a calendar quarter when the opacity of emissions from that unit during the calendar quarter or calendar day, as applicable, exceeds the emission limitations in §A(4)(a), (b), (c) and (d) of this regulation shall constitute a separate day of violation.

(2) A violation of §A(4)(a)(i), (ii), or (iii), §A(4)(b)(i), (ii) or (iii), §A(4)(c)(i), (ii) or (iii), or §A(4)(d)(i), (ii) or (iii), of this regulation, as applicable, that occur on the same day shall constitute separate violations.

(3) A daily violation that occurs during the same calendar quarter as a quarterly violation is a separate violation. “

“C. Fuel Burning Equipment Subject to Federal COM Requirements.

Except for owners or operators of fuel burning equipment subject to any federal requirement that mandates operation of a COM and as provided in §D of this regulation, the owner or operator of fuel burning equipment required to install and operate a COM may discontinue the operation of the COM on fuel burning equipment that is served by a flue gas desulfurization device:

(1) When emissions from the equipment do not bypass the flue gas desulfurization device serving the equipment;

(2) When the flue gas desulfurization device serving the equipment is in operation;

(3) If the owner or operator has demonstrated to the Department's satisfaction, in accordance with 40 CFR §75.14, as amended, and all other applicable State and federal requirements, that water vapor is present in the flue gas from the equipment and would impede the accuracy of opacity measurements; and

(4) If the owner or operator has fully implemented an alternative plan, approved by the Department, for monitoring opacity levels and particulate matter emissions from the stack that includes:

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(a) A schedule for monthly observations of visible emissions from the stack by a person trained to perform Method 9 observations; and
(b) Installation and operation of a particulate matter CEM that complies with all applicable State and federal requirements for particulate matter CEMs. “

“D. If, for units equipped with a flue gas desulfurization device, emissions bypass the device and are discharged through a bypass stack, the bypass stack shall be equipped with a COM approved by the Department.”

Emissions Unit Number(s): E-1 Boiler Cont'd

E-1: One (1) Atmospheric Circulating Fluidized Bed Boiler (ACFB) with a designed rated capacity of 2070 MMBtu/hr. of heat input burning bituminous coal and No. 2 diesel fuel during start-up. **[3-0127]**

Applicable Regulations:

Management of Coal Combustion Byproducts

COMAR 26.04.10.03B - General Restrictions and Specifically Prohibited Acts.

(3) Air Pollution

A person may not engage in the disposal, storage, transportation, processing, handling, or use of coal combustion byproducts without taking reasonable precautions to prevent particulate matter from becoming airborne. These reasonable precautions shall include, when appropriate as determined by the Department, those precautions described in COMAR 26.11.06.03C and D.

(4) Transportation.

In addition to the requirements of §B(3) of this regulation, a person may not transport coal combustion byproducts without taking reasonable precautions to control fugitive air emissions relating to the transportation. These reasonable precautions shall include, at a minimum, the following:

(a) Vehicles transporting coal combustion byproducts shall be fully enclosed, or fully enclosed on all sides and covered with a firmly secured canvas or other covering, so as to prevent any coal combustion byproducts from blowing off, falling off, or spilling out of the vehicle, or the coal combustion byproducts shall be handled and transported in sealed containers designed for transportation of powdery solids;

(b) Before leaving a site where coal combustion byproducts are loaded or off-loaded, vehicles transporting coal combustion byproducts shall be rendered clean and free of excess material or debris that could blow off, fall off, or spill during transportation;

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- (c) Coal combustion byproducts being loaded into or off-loaded from a vehicle shall be sufficiently moistened or otherwise conditioned or contained to prevent particulate coal combustion byproducts from becoming airborne or causing fugitive air emissions;
- (d) Following loading but prior to any transportation of coal combustion byproducts, the transporter shall inspect each vehicle that contains coal combustion byproducts to ensure that the requirements of §B(4) of this regulation are met;
- (e) A transporter of coal combustion byproducts shall maintain an inspection log for each vehicle that shall be maintained in the vehicle at all times during transport of coal combustion byproducts, and for 30 days thereafter that shall certify compliance with the standards in §B(4) of this regulation; and
- (f) An inspection log maintained by a transporter of coal combustion byproducts shall consist of an entry for each inspection of a vehicle that has been conducted by the transporter. An inspection entry shall consist of the following information:
- (i) The date the inspection occurred;
 - (ii) The time of day the inspection occurred;
 - (iii) The name of the person conducting the inspection;
 - (iv) The condition of the vehicle and any corrective action required to ensure compliance with this subsection, for example, "truck cleaned and covered" for a vehicle that meets the requirements, or "cover OK, right side wheels hosed off again" for a vehicle that was properly covered but which required re-cleaning of wheels on the right side; and
 - (v) The signature of the individual certifying compliance with §B(4) of this regulation.

2. Record Keeping and Reporting:

The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

- (a) A statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or
- (b) A revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

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SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

AES WR Limited Partnership (AES) is a coal fired electric generating station located at 11600 Mexico Farms Road, S.E in Cumberland in Allegany County in Maryland. The facility operates a 180-megawatt coal-fired steam electric plant. The facility consists of an ABB CE coal-fired atmospheric circulating fluidized bed (ACFB) boiler with a designed rated capacity of 2070 million Btu/hour heat input when burning bituminous coal and the associated equipment for process coal treatment and storage.

2. FACILITY INVENTORY LIST

Emissions Unit Number	MDE - ARA Registration Number	Emission Unit Name	Description	Date of Installation
EU-1	001-3-0127	Fluidized Bed Boiler	Atmospheric Circulating Fluidized Bed Boiler burning bituminous coal and No. 2 diesel fuel during start-up.	August, 1999
EU-2	001-6-0136	Limestone Truck Unloading Operation	Limestone truck unloading operation. PM emissions are controlled by a baghouse.	August, 1999
EU-3 and EU-4	001-6-0136	Two Limestone Crushing and Drying Systems	Each system contains one Raymond Roller Mill rated at 20 tons/hr., one natural gas/#2 oil-fired dryer rated at 5 MMBTU/hr., and a conveyor rated at 30 ton/hr. Each system's PM emissions are controlled by a baghouse.	August, 1999
EU-5	001-6-0136	Limestone Storage Silo	Limestone storage silo. PM emissions controlled by a baghouse	August, 1999
EU-6	001-3-0127	Coal Truck Unloading Operation	Truck unloading operation located in the coal unloading building. PM emissions controlled by a baghouse.	August, 1999
EU-7	001-3-0127	Coal Crushing and Reclaiming System	Contains two crushers, two vibrating feeders, one surge bin, two enclosed reclaim conveyors, one enclosed stockpile conveyor and one enclosed transfer conveyor, each located inside coal crusher building.	August 1999; March 2013 (Gundlach crusher modification)

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			Emissions are controlled by a baghouse.	
EU-8	001-3-0127	Coal Storage System.	Four storage silos connected to one baghouse that controls PM emissions.	August, 1999
EU-9	001-3-0127	Bed Ash Day Bin	Bed Ash Day Bin emissions vent through a baghouse.	August, 1999
EU-10	001-3-0127	Bed ash storage silo	Bed ash storage silo emissions vent through a baghouse.	August, 1999
EU-11	001-3-0127	Fly ash storage silo	Fly ash storage silo emissions vent through a baghouse.	August, 1999
EU-12	001-9-0081	Boiler Feed water Pump	Diesel fueled boiler feed water pump rated at 562 KW (740 HP).	August, 1999
EU-17 and EU-18	001-6-0243 001-6-0244	Space Heaters	Two natural gas fired boilers, each rated at 4.5 MMBTU/hr used for comfort heating	August, 1999
EU-19	001-6-0304	Fuel Blending Station	One (1) automated coal blending system comprising of a 45-ton feed hopper, and a 30-in drag-chain conveyor.	March, 2013

* The gap in the EU numbers (EU-13 – EU-16) represents emission units (storage tanks) that are insignificant installations and are included under the Insignificant Activities Section.

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SECTION II GENERAL CONDITIONS

1. DEFINITIONS

[COMAR 26.11.01.01] and [COMAR 26.11.02.01]

The words or terms in this Part 70 permit shall have the meanings established under COMAR 26.11.01 and .02 unless otherwise stated in this permit.

2. ACRONYMS

ARA	Air and Radiation Administration
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEM	Continuous Emissions Monitor
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMAR	Code of Maryland Regulations
EPA	United States Environmental Protection Agency
FR	Federal Register
gr	grains
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
MDE	Maryland Department of the Environment
MVAC	Motor Vehicle Air Conditioner
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
OTR	Ozone Transport Region
PM	Particulate Matter
PM10	Particulate Matter with Nominal Aerodynamic Diameter of 10 micrometers or less
ppm	parts per million
ppb	parts per billion
PSD	Prevention of Significant Deterioration
PTC	Permit to construct
PTO	Permit to operate (State)
SIC	Standard Industrial Classification
SO ₂	Sulfur Dioxide

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TAP	Toxic Air Pollutant
tpy	tons per year
VE	Visible Emissions
VOC	Volatile Organic Compounds

3. EFFECTIVE DATE

The effective date of the conditions in this Part 70 permit is the date of permit issuance, unless otherwise stated in the permit.

4. PERMIT EXPIRATION

[COMAR 26.11.03.13B(2)]

Upon expiration of this permit, the terms of the permit will automatically continue to remain in effect until a new Part 70 permit is issued for this facility provided that the Permittee has submitted a timely and complete application and has paid applicable fees under COMAR 26.11.02.16.

Otherwise, upon expiration of this permit the right of the Permittee to operate this facility is terminated.

5. PERMIT RENEWAL

[COMAR 26.11.03.02B(3)] and [COMAR 26.11.03.02E]

The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit at least 12 months before the expiration of the permit. Upon submitting a completed application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall submit such supplementary facts or corrected information no later than 10 days after becoming aware that this occurred. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a completed application was submitted, but prior to the release of a draft permit. This information shall be submitted to the Department no later than 20 days after a new requirement has been adopted.

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6. CONFIDENTIAL INFORMATION

[COMAR 26.11.02.02G]

In accordance with the provisions of the State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland, all information submitted in an application shall be considered part of the public record and available for inspection and copying, unless the Permittee claims that the information is confidential when it is submitted to the Department. At the time of the request for inspection or copying, the Department will make a determination with regard to the confidentiality of the information. The Permittee, when requesting confidentiality, shall identify the information in a manner specified by the Department and, when requested by the Department, promptly provide specific reasons supporting the claim of confidentiality. Information submitted to the Department without a request that the information be deemed confidential may be made available to the public. Subject to approval of the Department, the Permittee may provide a summary of confidential information that is suitable for public review. The content of this Part 70 permit is not subject to confidential treatment.

7. PERMIT ACTIONS

[COMAR 26.11.03.06E(3)] and [COMAR 26.11.03.20(A)]

This Part 70 permit may be revoked or reopened and revised for cause. The filing of an application by the Permittee for a permit revision or renewal; or a notification of termination, planned changes or anticipated noncompliance by the facility, does not stay a term or condition of this permit.

The Department shall reopen and revise, or revoke the Permittee's Part 70 permit under the following circumstances:

- a. Additional requirements of the Clean Air Act become applicable to this facility and the remaining permit term is 3 years or more;
- b. The Department or the EPA determines that this Part 70 permit contains a material mistake, or is based on false or inaccurate information supplied by or on behalf of the Permittee;

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- c. The Department or the EPA determines that this Part 70 permit must be revised or revoked to assure compliance with applicable requirements of the Clean Air Act; or
- d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

8. PERMIT AVAILABILITY

[COMAR 26.11.02.13G]

The Permittee shall maintain this Part 70 permit in the vicinity of the facility for which it was issued, unless it is not practical to do so, and make this permit immediately available to officials of the Department upon request.

9. REOPENING THE PART 70 PERMIT FOR CAUSE BY THE EPA

[COMAR 26.11.03.20B]

The EPA may terminate, modify, or revoke and reissue a permit for cause as prescribed in 40 CFR §70.7(g)

10. TRANSFER OF PERMIT

[COMAR 26.11.02.02E]

The Permittee shall not transfer this Part 70 permit except as provided in COMAR 26.11.03.15.

11. REVISION OF PART 70 PERMITS – GENERAL CONDITIONS

[COMAR 26.11.03.14] and [COMAR 26.11.03.06A(8)]

- a. The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.
- b. When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to

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the permit. This information shall be sufficient to evaluate the proposed change and to determine whether it will comply with all applicable requirements of the Clean Air Act.

- c. The Permittee may not change any provision of a compliance plan or schedule in a Part 70 permit as an administrative permit amendment or as a minor permit modification unless the change has been approved by the Department in writing.
- d. A permit revision is not required for a change that is provided for in this permit relating to approved economic incentives, marketable permits, emissions trading, and other similar programs.

12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

[COMAR 26.11.03.17]

The Permittee may apply to the Department to make a significant modification to its Part 70 Permit as provided in COMAR 26.11.03.17 and in accordance with the following conditions:

- a. A significant modification is a revision to the federally enforceable provisions in the permit that does not qualify as an administrative permit amendment under COMAR 26.11.03.15 or a minor permit modification as defined under COMAR 26.11.03.16.
- b. This permit does not preclude the Permittee from making changes, consistent with the provisions of COMAR 26.11.03, that would make the permit or particular terms and conditions of the permit irrelevant, such as by shutting down or reducing the level of operation of a source or of an emissions unit within the source. Air pollution control equipment shall not be shut down or its level of operation reduced if doing so would violate any term of this permit.
- c. Significant permit modifications are subject to all requirements of COMAR 26.11.03 as they apply to permit issuance and renewal, including the requirements for applications, public participation, and review by affected states and EPA, except:
 - (1) An application need include only information pertaining to the proposed change to the source and modification of this permit, including a description of the change and modification, and any

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new applicable requirements of the Clean Air Act that will apply if the change occurs;

- (2) Public participation, and review by affected states and EPA, is limited to only the application and those federally enforceable terms and conditions of the Part 70 permit that are affected by the significant permit modification.
- d. As provided in COMAR 26.11.03.15B(5), an administrative permit amendment may be used to make a change that would otherwise require a significant permit modification if procedures for enhanced preconstruction review of the change are followed that satisfy the requirements of 40 CFR 70.7(d)(1)(v).
- e. Before making a change that qualifies as a significant permit modification, the Permittee shall obtain all permits-to-construct and approvals required by COMAR 26.11.02.
- f. The Permittee shall not make a significant permit modification that results in a violation of any applicable requirement of the Clean Air Act.
- g. The permit shield in COMAR 26.11.03.23 applies to a final significant permit modification that has been issued by the Department, to the extent applicable under COMAR 26.11.03.23.

13. MINOR PERMIT MODIFICATIONS

[COMAR 26.11.03.16]

The Permittee may apply to the Department to make a minor modification to the federally enforceable provisions of this Part 70 permit as provided in COMAR 26.11.03.16 and in accordance with the following conditions:

- a. A minor permit modification is a Part 70 permit revision that:
 - (1) Does not result in a violation of any applicable requirement of the Clean Air Act;
 - (2) Does not significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by:

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- (a) Adding new requirements,
 - (b) Eliminating the requirements if they are rendered meaningless because the emissions to which the requirements apply will no longer occur, or
 - (c) Changing from one approved test method for a pollutant and source category to another;
- (3) Does not require or modify a:
- (a) Case-by-case determination of a federally enforceable emissions standard,
 - (b) Source specific determination for temporary sources of ambient impacts, or
 - (c) Visibility or increment analysis;
- (4) Does not seek to establish or modify a federally enforceable permit term or condition for which there is no corresponding underlying applicable requirement of the Clean Air Act, but that the Permittee has assumed to avoid an applicable requirement to which the source would otherwise be subject, including:
- (a) A federally enforceable emissions standard applied to the source pursuant to COMAR 26.11.02.03 to avoid classification as a Title I modification; and
 - (b) An alternative emissions standard applied to an emissions unit pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act
- (5) Is not a Title I modification; and
- (6) Is not required under COMAR 26.11.03.17 to be processed as a significant modification to this Part 70 permit.
- b. Application for a Minor Permit Modification

The Permittee shall submit to the Department an application for a minor permit modification that satisfies the requirements of COMAR 26.11.03.03 which includes the following:

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- (1) A description of the proposed change, the emissions resulting from the change, and any new applicable requirements that will apply if the change is made;
 - (2) The proposed minor permit modification;
 - (3) Certification by a responsible official, in accordance with COMAR 26.11.02.02F, that:
 - (a) The proposed change meets the criteria for a minor permit modification, and
 - (b) The Permittee has obtained or applied for all required permits-to-construct required by COMAR 26.11.03.16 with respect to the proposed change;
 - (4) Completed forms for the Department to use to notify the EPA and affected states, as required by COMAR 26.11.03.07-.12.
- c. Permittee's Ability to Make Change
- (1) For changes proposed as minor permit modifications to this permit that will require the applicant to obtain a permit to construct, the permit to construct must be issued prior to the new change.
 - (2) During the period of time after the Permittee applies for a minor modification but before the Department acts in accordance with COMAR 26.11.03.16F(2):
 - (a) The Permittee shall comply with applicable requirements of the Clean Air Act related to the change and the permit terms and conditions described in the application for the minor modification.
 - (b) The Permittee is not required to comply with the terms and conditions in the permit it seeks to modify. If the Permittee fails to comply with the terms and conditions in the application during this time, the terms and conditions of both this permit and the application for modification may be enforced against it.

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- d. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.16 is not within the scope of this regulation.
- e. Minor permit modification procedures may be used for Part 70 permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, but only to the extent that the minor permit modification procedures are explicitly provided for in regulations approved by the EPA as part of the Maryland SIP or in other applicable requirements of the Clean Air Act.

14. ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS

[COMAR 26.11.03.15]

The Permittee may apply to the department to make an administrative permit amendment as provided in COMAR 26.11.03.15 and in accordance with the following conditions:

- a. An application for an administrative permit amendment shall:
 - (1) Be in writing;
 - (2) Include a statement certified by a responsible official that the proposed amendment meets the criteria in COMAR 26.11.03.15 for an administrative permit amendment, and
 - (3) Identify those provisions of this part 70 permit for which the amendment is requested, including the basis for the request.
- b. An administrative permit amendment:
 - (1) Is a correction of a typographical error;
 - (2) Identifies a change in the name, address, or phone number of a person identified in this permit, or a similar administrative change involving the Permittee or other matters which are not directly related to the control of air pollution;
 - (3) requires more frequent monitoring or reporting by the Permittee;

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- (4) Allows for a change in ownership or operational control of a source for which the Department determines that no other revision to the permit is necessary and is documented as per COMAR 26.11.03.15B(4);
 - (5) Incorporates into this permit the requirements from preconstruction review permits or approvals issued by the Department in accordance with COMAR 26.11.03.15B(5), but only if it satisfies 40 CFR 70.7(d)(1)(v);
 - (6) Incorporates any other type of change, as approved by the EPA, which is similar to those in COMAR 26.11.03.15B(1)—(4);
 - (7) Notwithstanding COMAR 26.11.03.15B(1)—(6), all modifications to acid rain control provisions included in this Part 70 permit are governed by applicable requirements promulgated under Title IV of the Clean Air Act; or
 - (8) Incorporates any change to a term or condition specified as State-only enforceable, if the Permittee has obtained all necessary permits-to-construct and approvals that apply to the change.
- c. The Permittee may make the change addressed in the application for an administrative amendment upon receipt by the Department of the application, if all permits-to-construct or approvals otherwise required by COMAR 26.11.02 prior to making the change have first been obtained from the Department.
 - d. The permit shield in COMAR 26.11.03.23 applies to administrative permit amendments made under Section B(5) of COMAR 26.11.03.15 , but only after the Department takes final action to revise the permit.
 - e. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.15 is not within the scope of this regulation.

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15. OFF-PERMIT CHANGES TO THIS SOURCE

[COMAR 26.11.03.19]

The Permittee may make off-permit changes to this facility as provided in COMAR 26.11.03.19 and in accordance with the following conditions:

- a. The Permittee may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:
 - (1) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;
 - (2) The change is not subject to any requirements under Title IV of the Clean Air Act;
 - (3) The change is not a Title I modification; and
 - (4) The change does not violate an applicable requirement of the Clean Air Act or a federally enforceable term or condition of the permit.
- b. For a change that qualifies under COMAR 26.11.03.19, the Permittee shall provide contemporaneous written notice to the Department and the EPA, except for a change to an emissions unit or activity that is exempt from the Part 70 permit application, as provided in COMAR 26.11.03.04. This written notice shall describe the change, including the date it was made, any change in emissions, including the pollutants emitted, and any new applicable requirements of the Clean Air Act that apply as a result of the change.
- c. Upon satisfying the requirements of COMAR 26.11.03.19, the Permittee may make the proposed change.
- d. The Permittee shall keep a record describing:
 - (1) Changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement of the Clean Air Act , but not otherwise regulated under this permit; and

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- (2) The emissions resulting from those changes.
- e. Changes that qualify under COMAR 26.11.03.19 are not subject to the requirements for Part 70 revisions.
- f. The Permittee shall include each off-permit change under COMAR 26.11.03.19 in the application for renewal of the part 70 permit.
- g. The permit shield in COMAR 26.11.03.23 does not apply to off-permit changes made under COMAR 26.11.03.19.
- h. The Permittee is subject to enforcement action if it is determined that an off-permit change made under COMAR 26.11.03.19 is not within the scope of this regulation.

16. ON-PERMIT CHANGES TO SOURCES

[COMAR 26.11.03.18]

The Permittee may make on-permit changes that are allowed under Section 502(b)(10) of the Clean Air Act as provided in COMAR 26.11.03.18 and in accordance with the following conditions:

- a. The Permittee may make a change to this facility without obtaining a revision to this Part 70 permit if:
 - (1) The change is not a Title I modification;
 - (2) The change does not result in emissions in excess of those expressly allowed under the federally enforceable provisions of the Part 70 permit for the permitted facility or for an emissions unit within the facility, whether expressed as a rate of emissions or in terms of total emissions;
 - (3) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;
 - (4) The change does not violate an applicable requirement of the Clean Air Act;
 - (5) The change does not violate a federally enforceable permit term or condition related to monitoring, including test methods, record keeping, reporting, or compliance certification requirements;

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- (6) The change does not violate a federally enforceable permit term or condition limiting hours of operation, work practices, fuel usage, raw material usage, or production levels if the term or condition has been established to limit emissions allowable under this permit;
 - (7) If applicable, the change does not modify a federally enforceable provision of a compliance plan or schedule in this Part 70 permit unless the Department has approved the change in writing; and
 - (8) This permit does not expressly prohibit the change under COMAR 26.11.03.18.
- b. The Permittee shall notify the Department and the EPA in writing of a proposed on-permit change under COMAR 26.11.03.18 not later than 7 days before the change is made. The written information shall include the following information:
- (1) A description of the proposed change;
 - (2) The date on which the change is proposed to be made;
 - (3) Any change in emissions resulting from the change, including the pollutants emitted;
 - (4) Any new applicable requirement of the Clean Air Act; and
 - (5) Any permit term or condition that would no longer apply.
- c. The responsible official of this facility shall certify in accordance with COMAR 26.11.02.02F that the proposed change meets the criteria for the use of on-permit changes under COMAR 26.11.03.18.
- d. The Permittee shall attach a copy of each notice required by condition b. above to this Part 70 permit.
- e. On-permit changes that qualify under COMAR 26.11.03.18 are not subject to the requirements for part 70 permit revisions.
- f. Upon satisfying the requirements under COMAR 26.11.03.18, the Permittee may make the proposed change.

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- g. The permit shield in COMAR 26.11.03.23 does not apply to on-permit changes under COMAR 26.11.03.18.
- h. The Permittee is subject to enforcement action if it is determined that an on-permit change made under COMAR 26.11.03.18 is not within the scope of the regulation or violates any requirement of the State air pollution control law.

17. FEE PAYMENT

[COMAR 26.11.02.16A(2) & (5)(b)]

- a. The fee for this Part 70 permit is as prescribed in Regulation .19 of COMAR 26.11.02.
- b. The fee is due on and shall be paid on or before each 12-month anniversary date of the permit.
- c. Failure to pay the annual permit fee constitutes cause for revocation of the permit by the Department.

18. REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS

[COMAR 26.11.02.09.]

The Permittee may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits-to-construct and approvals:

- a. New Source Review source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;
- b. Prevention of Significant Deterioration source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;
- c. New Source Performance Standard source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

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- d. National Emission Standards for Hazardous Air Pollutants source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;
- e. A stationary source of lead that discharges one ton per year or more of lead or lead compounds measured as elemental lead, permit to construct required, except for generating stations constructed by electric companies;
- f. All stationary sources of air pollution, including installations and air pollution control equipment, except as listed in COMAR 26.11.02.10, permit to construct required;
- g. In the event of a conflict between the applicability of (a.— e.) above and an exemption listed in COMAR 26.11.02.10, the provision that requires a permit applies.
- h. Approval of a PSD or NSR source by the Department does not relieve the Permittee obtaining an approval from also obtaining all permits-to-construct required by (c.— g.) above.

19. CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION

[COMAR 26.11.02.11C] and [COMAR 26.11.03.01K]

The Permittee may request the Department to authorize special procedures for the Permittee to apply simultaneously, to the extent possible, for a permit to construct and a revision to this permit.

These procedures may provide for combined public notices, informational meetings, and public hearings for both permits but shall not adversely affect the rights of a person, including EPA and affected states, to obtain information about the application for a permit, to comment on an application, or to challenge a permit that is issued.

These procedures shall not alter any existing permit procedures or time frames.

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20. PROPERTY RIGHTS

[COMAR 26.11.03.06E(4)]

This Part 70 permit does not convey any property rights of any sort, or any exclusive privileges.

21. SEVERABILITY

[COMAR 26.11.03.06A(5)]

If any portion of this Part 70 permit is challenged, or any term or condition deemed unenforceable, the remainder of the requirements of the permit continues to be valid.

22. INSPECTION AND ENTRY

[COMAR 26.11.03.06G(3)]

The Permittee shall allow employees and authorized representatives of the Department, the EPA, and local environmental health agencies, upon presentation of credentials or other documents as may be required by law, to:

- a. Enter at a reasonable time without delay and without prior notification the Permittee's property where a Part 70 source is located, emissions-related activity is conducted, or records required by this permit are kept;
- b. Have access to and make copies of records required by the permit;
- c. Inspect all emissions units within the facility subject to the permit and all related monitoring systems, air pollution control equipment, and practices or operations regulated or required by the permit; and
- d. Sample or monitor any substances or parameters at or related to the emissions units at the facility for the purpose of determining compliance with the permit.

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23. DUTY TO PROVIDE INFORMATION

[COMAR 26.11.03.06E(5)]

The Permittee shall furnish to the Department, within a reasonable time specified by the Department, information requested in writing by the Department in order to determine whether the Permittee is in compliance with the federally enforceable conditions of this Part 70 permit, or whether cause exists for revising or revoking the permit. Upon request, the Permittee shall also furnish to the Department records required to be kept under the permit.

For information claimed by the Permittee to be confidential and therefore potentially not disclosable to the public, the Department may require the Permittee to provide a copy of the records directly to the EPA along with a claim of confidentiality.

The Permittee shall also furnish to the Department, within a reasonable time specified by the Department, information or records requested in writing by the Department in order to determine if the Permittee is in compliance with the State-only enforceable conditions of this permit.

24. COMPLIANCE REQUIREMENTS

[COMAR 26.11.03.06E(1)] and [COMAR 26.11.03.06A(11)] and [COMAR 26.11.02.05]

The Permittee shall comply with the conditions of this Part 70 permit. Noncompliance with the permit constitutes a violation of the Clean Air Act, and/or the Environment Article Title 2 of the Annotated Code of Maryland and may subject the Permittee to:

- a. Enforcement action,
- b. Permit revocation or revision,
- c. Denial of the renewal of a Part 70 permit, or
- d. Any combination of these actions.

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The conditions in this Part 70 permit are enforceable by EPA and citizens under the Clean Air Act except for the State-only enforceable conditions.

Under Environment Article Section 2-609, Annotated Code of Maryland, the Department may seek immediate injunctive relief against a person who violates this permit in such a manner as to cause a threat to human health or the environment.

25. CREDIBLE EVIDENCE

Nothing in this permit shall be interpreted to preclude the use of credible evidence to demonstrate noncompliance with any term of this permit.

26. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

[COMAR 26.11.03.06E(2)]

The need to halt or reduce activity in order to comply with the conditions of this permit may not be used as a defense in an enforcement action.

27. CIRCUMVENTION

[COMAR 26.11.01.06]

The Permittee may not install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total weight of emissions, conceals or dilutes emissions which would otherwise constitute a violation of any applicable air pollution control regulation.

28. PERMIT SHIELD

[COMAR 26.11.03.23]

A permit shield as described in COMAR 26.11.03.23 shall apply only to terms and conditions in this Part 70 permit that have been specifically identified as covered by the permit shield. Neither this permit nor COMAR 26.11.03.23 alters the following:

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- a. The emergency order provisions in Section 303 of the Clean Air Act, including the authority of EPA under that section;
- b. The liability of the Permittee for a violation of an applicable requirement of the Clean Air Act before or when this permit is issued or for a violation that continues after issuance;
- c. The requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act;
- d. The ability of the Department or EPA to obtain information from a source pursuant to Maryland law and Section 114 of the Clean Air Act; or
- e. The authority of the Department to enforce an applicable requirement of the State air pollution control law that is not an applicable requirement of the Clean Air Act.

29. ALTERNATE OPERATING SCENARIOS

[COMAR 26.11.03.06A(9)]

For all alternate operating scenarios approved by the Department and contained within this permit, the Permittee, while changing from one approved scenario to another, shall contemporaneously record in a log maintained at the facility each scenario under which the emissions unit is operating and the date and time the scenario started and ended.

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SECTION III PLANT WIDE CONDITIONS

1. PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

[COMAR 26.11.06.03D]

The Permittee shall not cause or permit any building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

2. OPEN BURNING

[COMAR 26.11.07]

Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

3. AIR POLLUTION EPISODE

[COMAR 26.11.05.04]

When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating air pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

4. REPORT OF EXCESS EMISSIONS AND DEVIATIONS

[COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)]

The Permittee shall comply with the following conditions for occurrences of excess emissions and deviations from requirements of this permit, including those in Section VI – State-only Enforceable Conditions:

- a. Report any deviation from permit requirements that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;

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- b. Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence;
- c. When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;
- d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.
- e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

5. ACCIDENTAL RELEASE PROVISIONS

[COMAR 26.11.03.03B(23)] and [40 CFR 68]

The Permittee shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

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6. GENERAL TESTING REQUIREMENTS

[COMAR 26.11.01.04]

The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with this Part 70 permit. The Department, at its option, may witness or conduct these tests. This testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

7. EMISSIONS TEST METHODS

[COMAR 26.11.01.04]

Compliance with the emissions standards and limitations in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

- a. 40 CFR 60, appendix A
- b. 40 CFR 51, appendix M
- c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

8. EMISSIONS CERTIFICATION REPORT

**[COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and
[COMAR 26.11.02.19D]**

The Permittee shall certify actual annual emissions of regulated pollutants from the facility on a calendar year basis.

- a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;

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- b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:
 - (1) Familiar with each source for which the certifications forms are submitted, and
 - (2) Responsible for the accuracy of the emissions information;

- c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:
 - (1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;
 - (2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;
 - (3) Amounts, types and analyses of all fuels used;
 - (4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;
 - (5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:
 - (a) Significant maintenance performed,
 - (b) Malfunctions and downtime, and
 - (c) Episodes of reduced efficiency of all equipment;
 - (6) Limitations on source operation or any work practice standards that significantly affect emissions; and
 - (7) Other relevant information as required by the Department.

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9. COMPLIANCE CERTIFICATION REPORT

[COMAR 26.11.03.06G(6) and (7)]

The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each applicable standard, emissions limitation, and work practice for the previous calendar year by April 1 of each year.

- a. The compliance certification shall include:
 - (1) The identification of each term or condition of this permit which is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether the compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of each source, currently and over the reporting period; and
 - (5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.
- b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

10. CERTIFICATION BY RESPONSIBLE OFFICIAL

[COMAR 26.11.02.02F]

All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a responsible official as to truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons

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who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

[COMAR 26.11.03.06C(5)]

The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

- a. The location as specified in this permit, and the date and time that samples and measurements are taken;
- b. All pertinent operating conditions existing at the time that samples and measurements are taken;
- c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;
- d. The identity of the Permittee, individual, or other entity that performed the analysis;
- e. The analytical techniques and methods used; and
- f. The results of each analysis.

12. GENERAL RECORDKEEPING

[COMAR 26.11.03.06C(6)]

The Permittee shall retain records of all monitoring data and information that support the compliance certification for a period of five (5) years from the date that the monitoring, sample measurement, application, report or emissions test was completed or submitted to the Department.

These records and support information shall include:

- a. All calibration and maintenance records;

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- b. All original data collected from continuous monitoring instrumentation;
- c. Records which support the annual emissions certification; and
- d. Copies of all reports required by this permit.

13. GENERAL CONFORMITY

[COMAR 26.11.26.09]

The Permittee shall comply with the general conformity requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09.

14. ASBESTOS PROVISIONS

[40 CFR 61, Subpart M]

The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

15. OZONE DEPLETING REGULATIONS

[40 CFR 82, Subpart F]

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in subpart B:

- a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.
- b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

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- d. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.155.
- e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
- f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

16. ACID RAIN PERMIT

Not applicable

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SECTION IV PLANT SPECIFIC CONDITIONS

This section provides tables that include the emissions standards, emissions limitations, and work practices applicable to each emissions unit located at this facility. The Permittee shall comply with all applicable emissions standards, emissions limitations and work practices included herein.

The tables also include testing, monitoring, record keeping and reporting requirements specific to each emissions unit. In addition to the requirements included here in **Section IV**, the Permittee is also subject to the general testing, monitoring, record keeping, and reporting requirements included in **Section III – Plant Wide Conditions** of this permit.

Unless otherwise provided in the specific requirements for an emissions unit, the Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, all records that the Permittee is required under this section to establish. [**Authority: COMAR 26.11.03.06C(5)(g)**]

Table IV – 1	
1.0	<p><u>Emissions Unit Number: EU-1</u></p> <p>EU-1: One (1) Atmospheric Circulating Fluidized Bed (ACFB) boiler with a designed rated capacity of 2070 MMBtu/hr. of heat input that combusts coal as its primary fuel and diesel oil as a backup fuel.</p>
1.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. Visible Emissions</p> <p>1. COMAR 26.11.09.05A (1), In Areas I, II, V, and VI, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is greater than 20 percent opacity. Exceptions: COMAR 26.11.09.05A(1) does not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:</p> <ul style="list-style-type: none"> a. The visible emissions are not greater than 40 percent opacity; and b. The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period. [Authority: COMAR 26.11.09.05A (3)].

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2. **40 CFR 60.42Da(b)** - NSPS Subpart Da, which limits the discharge into the atmosphere of any gases which exhibit greater than 20 percent opacity (6-minute average) except for a 6-minute period per hour of not more than 27% opacity.

The limit under §60.42Da applies at all times except during periods of startup, shutdown, or malfunction. **[Authority: 40 CFR 60.48 Da (a)].**

Note: Compliance with visible emissions limit will be the basis for demonstrating compliance with the applicable NSPS regulation.

B. Particulate Matter Emissions

1. **40 CFR 60.42Da(a)** – NSPS Subpart Da, which limits particulate matter emissions to 0.03 lbs./MMBtu heat input. The limit under §60.42 Da applies at all times except during periods of startup, shutdown, or malfunction. **[Authority: 40 CFR 60.48Da(a)].**
2. **§60.48Da Compliance provisions.** “(f) For affected facilities for which construction, modification, or reconstruction commenced before May 4, 2011, compliance with the applicable daily average PM emissions limit is determined by calculating the arithmetic average of all hourly emission rates each boiler operating day, except for data obtained during startup, shutdown, or malfunction periods. Daily averages must be calculated for boiler operating days that have out-of-control periods totaling no more than 6 hours of unit operation during which the standard applies.”
3. **PSD Approval No. 94-01A**, which limit PM₁₀ emissions to 0.015 lbs./MMBtu heat input - 3-hour average and 136 tons per year based on a maximum heat input of 17,934,480 MMBtu averaged on a rolling 12-month period. (See PSD limits in Table IV-1, Section 1.1 Paragraph E below).

Note: The same monitoring, record keeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.42Da(a) and the PSD limit.

4. **COMAR 26.11.09.06(A)(2)** which limits particulate emissions to be discharged into the atmosphere in excess of the amounts shown in Figure 2. For the ACFB boiler this is 0.1 lb./MMBtu heat input.

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(Streamlined with PSD limit. Compliance with the PSD BACT limit assures compliance with the RACT limit.)

C. Sulfur Oxides Emissions

1. **40 CFR 60.43Da(a)(1) - (4)** – NSPS Subpart Da, which prohibit the discharge of any gases into the atmosphere which contain sulfur dioxide from the combustion of solid fuel in excess of: (1) 1.20 lbs./MMBtu heat input per hour and 10 percent of the potential combustion concentration (90 percent reduction); (2) 30 percent of the potential combustion concentration (70 percent reduction), when emissions are less than 0.60 lbs./MMBtu of heat input; (3) 1.4 lb./MWh gross energy output; or (4) 0.15 lb./MMBtu heat input.

Note: Compliance with the emissions limitation and percent reduction requirements are determined on a 30-day rolling average **[Authority: 40 CFR 60.43Da(g)].**

2. **PSD Approval No. 94-01A**, which limit sulfur dioxide emissions to 0.21 lbs./MM Btu per 3-hr block average; 0.19 lbs./MM Btu per 24-hr block average and 0.16 lbs./MM Btu per annual average – 1403 tons per year. In addition, the boiler shall be designed to achieve a control efficiency for sulfur dioxide of no less than 95 percent (based on a 30-day block average) based on the design coal specified in the PSD application.
3. **COMAR 26.11.09.07(A)(1)(a)** which limits the oxides of sulfur to 3.5 pounds per million BTU and **COMAR 26.11.09.07(A)(1)(a)** which limits sulfur in distillate fuel oil in excess of 0.3 percent.
(Streamlined with PSD limit. Compliance with the PSD BACT limit assures compliance with this RACT limits.)

D. NOx Emissions

1. **40 CFR 60.44Da(a)(1)**, NSPS Subpart Da which prohibits the discharge of any gases into the atmosphere which contain nitrogen oxides, from the combustion of bituminous coal in excess of 0.6 lbs./MMBtu of heat input based on a 30-day rolling average.

Note: The limit under §60.44Da applies at all times except during periods of startup, shutdown, or malfunction. **[Authority: 40 CFR 60.48Da(a)].**

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Table IV – 1

2. **PSD Approval No. 94-01A**, which limit nitrogen oxide emissions to 0.10 lbs./MMBtu on a 24-hr block average and 907 tons per year. The PSD approval includes the operation of an SNCR system to achieve these NO_x emissions limits.
3. **COMAR 26.11.09.08B(1)(c)** – Emissions Standard for coal (dry Bottom): 0.38 lbs./MMBtu of heat input based on a 30-day rolling average.
4. **COMAR 26.11.38D(2)** which states that an electric generating equipped with a fluidized bed combustor shall not exceed a NO_x 24-hour block average emission rate of 0.10 lbs./MMBtu.

E. Other Operating Limits and Standards

1. PSD Approval # 94-01A

The Permittee shall comply with the following emissions standards and allowable annual emissions in Table 1 below:

Table 1 (Limits of PSD Approval No. 94-01A)

Pollutant	Maximum Emissions Std. (lbs./MMBtu)	Maximum Annual Emissions (TPY)
Carbon Monoxide	0.15 per 24-hr average; 0.188 @ 40% load	1360
Hydrocarbons (non-methane as VOC)	0.005 per 3-hr average; 0.007 @ 40% load	45
Sulfuric Acid Mist	0.006 per 3-hr average	54.4
Fluorides (Total)	0.007 per 3-hr average	5.89
Beryllium	7.7×10^{-7} per 3-hr average	7×10^{-3}
Lead	9.9×10^{-6} per 3-hr average	0.09
Mercury	1.7×10^{-5} per 3-hr average	0.16
Ammonia	0.005 per 3-hr average @ full load 0.008 @ 75% load 0.011 @ 40% load	45

The Permittee shall limit the heat input to the ACFB boiler to 17,934,480 MMBtu on a rolling 12-month basis.

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1.2	<p><u>Testing Requirements:</u></p> <p>A. Visible Emissions</p> <p>The Permittee shall perform QA/QC procedures on the Continuous Opacity Monitoring (COM) system as required by permit to construct (PTC) 001-3-0127, 0136 & 0067 issued on August 10, 1994 and amended on November 17, 2005 and NSPS 40 CFR Part 60 Subpart Da. The Permittee shall provide the Department a notice of intent to audit the CEM system at least 30 day prior to the proposed test date. [Authority: 40 CFR Part 60, subpart Da and PTC Nos. 001-3-0127, 001-6-0136 & 001-4-0067 issued on August 10, 1994 and amended on November 17, 2005].</p> <p>B. Particulate Matter Emissions</p> <p>The Permittee shall perform a total particulate and PM₁₀ emissions test once during the life of the permit. A test protocol shall be submitted to the Department for review and approval at least 30 days before any testing is conducted. Furthermore, all testing shall be conducted at reasonable time and with 10 days' notice to the Department to allow representation by Department's personnel. [Authority: COMAR 26.11.03.06C].</p> <p>C. Sulfur Oxides Emissions</p> <p>The Permittee shall conduct performance certification testing, as required by 40 CFR Part 60, Appendix F, on the sulfur dioxide continuous emissions monitoring (CEM) system. The Permittee shall provide the Department with a notice of intent to audit the CEM system at least 30 day prior to the proposed test date. [Authority: 40 CFR Part 60, subpart Da and PTC No. 001-3-0127 issued on August 10, 1994 and amended on November 17, 2005].</p> <p>D. NOx Emissions</p> <p>Conduct performance certification testing as required by 40 CFR Part 75, Subpart H on the NOx continuous emissions monitoring system. The Permittee shall provide the Department a notice of intent to audit the CEM system at least 30 day prior to the proposed test date. [Authority: 40 CFR 60 Subpart Da, and PTC No. 001-3-0127 issued on August 10, 1994 and amended on November 17, 2005].</p>
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	<p>E. Other Operation Limits and Standards</p> <p>Once during the life of the permit, the Permittee shall conduct testing for the other PSD pollutants. [Authority: COMAR 26.11.03.06C & COMAR 26.11.01.04A] Last tested in 2010 – Beryllium, Pb, etc. See PTC testing requirements</p>
1.3	<p><u>Monitoring Requirements:</u></p> <p>A. Visible Emissions</p> <ol style="list-style-type: none"> 1. The Permittee shall continuously monitor opacity of the stack gases using a continuous opacity monitor (COM) that is certified in accordance with 40 CFR Part 60, Appendix B and that meets the quality assurance criteria of COMAR 26.11.31. [Authority: COMAR 26.11.01.10, PSD Approval No. 94-01A, and 40 CFR 60.49Da]. 2. The Permittee shall ensure that valid COM data are obtained for a minimum of 95 percent of the operating hours in each quarter. [Authority: COMAR 26.11.01.10D(1)C]. <p>B. Particulate Matter Emissions</p> <p>The Permittee shall perform requirements of the CAM plan submitted with the renewal application. See Tables IV-1.1 and IV-1.2 that follows this table. [Authority: COMAR 26.11.03.06C].</p> <p>C. Sulfur Oxides Emissions</p> <ol style="list-style-type: none"> 1. The Permittee shall continuously monitor sulfur dioxide emissions in accordance with the requirements of 40 CFR Part 60, Subpart Da §60.47Da(b) to demonstrate compliance with the PSD limits for SO₂ specified in Table IV-1 Section 1.1 Paragraph E [Authority: 40 CFR Part 60, subpart Da, COMAR 26.11.01.11B(1), and PSD Approval #94-01A]. 2. The Permittee shall ensure that valid CEM data are obtained for SO_x and CO₂ monitoring systems for a minimum of 90 percent of the operating hours in each quarter. [Authority: PTC No. 001-3-0127 issued August 10, 1994 and reissued November 17, 2005].

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3. The Permittee must obtain at least two valid data hours to calculate a valid three-hour CEM average and at least twelve hours to calculate a valid daily CEM average. **[Authority: PTC No. 001-3-0127 issued August 10, 1994 and reissued November 17, 2005].**

D. NO_x Emissions

1. The Permittee shall operate a continuous emission monitoring system to continuously monitor the NO_x emissions. The CEM system shall meet the performance specification of 40 CFR Part 75, Subpart H. **[Authority: 40 CFR Part 60 subpart Da, PTC No. 001-3-0127 and PSD Approval #94-01A issued August 10, 1994 and reissued November 17, 2005].**
2. The Permittee shall ensure that valid CEM data are obtained by the NO_x and CO₂ monitoring systems for a minimum of 90 percent of the operating hours in each quarter. **[Authority: PTC No. 001-3-0127 issued August 10, 1994 and re-issued November 17, 2005].**
3. The Permittee must obtain at least twelve data hours to calculate a valid daily CEM average. **[Authority: 001-3-0127 issued August 10, 1994 and re-issued November 17, 2005].**
4. The Permittee shall install, operate and certify in accordance with 40 CFR Part 75 a continuous monitoring system to demonstrate compliance with NO_x emissions. **[Authority: COMAR 26.11.38B(1)]**

E. Other Operation Limits and Standards

1. The Permittee shall properly operate and maintain the ACFB boiler in a manner consistent with the boiler combustion optimal performance and design criteria and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance. **[Authority: COMAR 26.11.03.06C].**
2. The Permittee shall operate CEMs to continually monitor either the oxygen content or carbon dioxide of the ACFB boiler stack gases **[Authority: 40 CFR Part 60 subpart Da and PSD Approval # 94-01A issued August 10,1994 and reissued November 17, 2005].**
3. Alternative Flow Monitoring methodology: The Permittee shall:
 - a. Perform a DAHS verification (recommend annually), to demonstrate that the correct default flow rate value (either

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	<p>540,000 scfh or 1,080,00 scfh, as appropriate) is being added to the measured stack flow rate when the slip stream is extracted. The results of this demonstration shall be kept on-site in a format suitable for inspection; and</p> <p>b. For any hour(s) in which the slip stream is being extracted, but the digital signal indicating the number of blowers in operation is either missing, invalid or not interpretable, add 1,080,000 scfh to measured stack flow rate(s) (recommend annual verification); and</p> <p>c. Perform relative accuracy test audits (RATAs) of the flow monitor as described in (a) or (b), below. That is, either:</p> <ul style="list-style-type: none"> i. Conduct the RATA testing at a time when the CO₂ slipstream is not being extracted; or ii. If the slipstream is being extracted at the time of the RATA, compare the <i>unadjusted</i> flow rates measure by the monitor (i.e., with no correction factor for the slipstream volume) against the reference method measurements. [Authority: PSD Approval #94-01A, Part B-Construction, #17 issued August 10,1994 and 2002 Petition approval from EPA dated May 1, 2002].
1.4	<p><u>Record Keeping Requirements:</u></p> <p>A. Visible Emissions</p> <p>The Permittee shall maintain all CEM records necessary to comply with the data reporting requirements of COMAR 26.11.01.11E and 40 CFR 60.49Da [Authority: COMAR 26.11.01.11E and 40 CFR 60.49Da].</p> <p>B. Particulate Matter Emissions</p> <p>The Permittee shall maintain a record of the results of emissions testing for total particulate matter and PM₁₀ for at least five years. [Authority: COMAR 26.11.03.06C].</p> <p>C. Sulfur Oxides Emissions</p> <p>The Permittee shall maintain all CEM records necessary to comply with the data reporting requirements of COMAR 26.11.01.11E for the demonstration of compliance with the PSD standards. [Authority: COMAR 26.11.01.11E].</p>

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	<p>D. NOx Emissions</p> <p>The Permittee shall maintain all CEM records necessary to comply with the data reporting requirements of COMAR 26.11.01.11E for the demonstration of compliance with the NO_x emissions standard. [Authority: COMAR 26.11.01.11E].</p> <p>E. Other Operation Limits and Standards</p> <p>The Permittee shall:</p> <ol style="list-style-type: none"> 1. Maintain records of the heat input to the ACFB on a daily basis. 2. Maintain records of maintenance performed on ACFB boiler that relate to combustion performance for at least five years [Authority: COMAR 26.11.03.06C]. 3. Maintain records of the CEMS readings for the oxygen or carbon dioxide content of the AFBC boiler stack gases for at least five years. [Authority: PSD Approval # 94-01A and COMAR 26.11.03.06C].
1.5	<p><u>Reporting Requirements:</u></p> <p>A. Visible Emissions</p> <ol style="list-style-type: none"> 1. The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following: <ol style="list-style-type: none"> i. The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards; ii. The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned; iii. (iii) The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the validity of emission data; iv. Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter; v. Quarterly quality assurance activities; and vi. Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and vii. Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this

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regulation.” **[Authority: COMAR 26.11.01.11E and 40 CFR 60.51Da].**

2. For any period for which opacity data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operation of the control system and affected facility during periods of data unavailability are to be compared with operation of the control systems and affected facility before and following the period of unavailability **[Authority: 40 CFR 60.51Da(f)].**

B. Particulate Matter Emissions

The Permittee shall submit the results of stack tests in a final report within 45 days from test completion. **[Authority: COMAR 26.11.01.04A].**

C. Sulfur Oxides Emissions

1. The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter that contains the information listed in COMAR 26.11.01.11E(2)(c)). See Record keeping Condition A above. **[Authority: COMAR 26.11.01.11E(2)(c)].**
2. The Permittee shall report the NSPS percent reduction of the potential concentration of sulfur dioxide for each 30 successive boiler operating days, ending with the last 30-day period in the quarter, reasons for non-compliance with the standard, and description of corrective actions taken. **[Authority: 40 CFR 60.51Da(b)(3)].**
3. For any period for which sulfur dioxide emissions data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operation of the control system and affected facility during periods of data unavailability are to be compared with operation of the control systems and affected facility before and following the period of unavailability **[Authority: 40 CFR 60.51Da(f)].**

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D. NOx Emissions

1. The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter that contains the information listed in COMAR 26.11.01.11E. See Record keeping Condition A above. **[Authority: COMAR 26.11.01.11E].**
2. For any period for which nitrogen oxides emissions data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operation of the control system and affected facility during periods of data unavailability are to be compared with operation of the control systems and affected facility before and following the period of unavailability **[Authority: 40 CFR 60.51Da(f)].**

E. Other Operation Limits and Standards

1. The Permittee shall report on the quarterly CEM report the rolling 12-month heat input of the ACFB boiler during the quarter. **[Authority: PSD Approval # 94-01A and PTC No. 001-3-0127 A].**
2. The Permittee shall submit a CEMS summary data for oxygen or carbon dioxide along with the quarterly SO_x and NO_x CEMs excess emissions report to the Department 30 days following the end of each calendar. **[Authority: COMAR 26.11.01.11E and PTC No. 001-3-0127A].**

A permit shield shall cover the applicable requirements identified for the emissions units listed in the above table.

CAM Plan for the Fabric Filter baghouse that controls particulate matter emissions from the ACFB boiler. **[Authority: 40 CFR Part 64].**

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The Permittee shall comply with the requirements of the CAM plan that are summarized in the following tables:

Table IV - 1.1 CAM Plan Monitoring Approach – Indicator 1 (Primary)

I. Indicator Monitoring Approach	Opacity Opacity is measured continuously with a COMS unit.
II. Indicator Range	An internal, non-enforceable trigger level of 10.9% average opacity (three-hour block average).
Corrective Action	An excursion triggers an inspection, corrective action as necessary, and a reporting requirement.
III. Performance Criteria	
A. Data Representativeness	The monitoring system consists of a COMS which monitors the opacity of the exhaust gas stream.
B. Verification of Operational Status	Continuous opacity data will be collected in accordance with COMAR 26.11.01.10 and COMAR 26.11.31.
C. QA/QC Practices and Criteria	The COMS will be certified in accordance with 40 CFR Part 60, Appendix B. COMS will be calibrated, maintained, and operated according to manufacturer's recommendations. COM data will be collected and validated in accordance with COMAR 26.11.01.10 and COMAR 26.11.31.
D. Monitoring Frequency and Data Collection Procedure	Opacity data are automatically reduced to 6-minute block averages calculated from 36 or more equally spaced data points.
E. Record Keeping	The continuous opacity data collected and corrective actions taken will be maintained for 5 years.
F. Reporting	Report of excursions and corrective actions will be submitted to the Department in a quarterly report.

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Table IV - 1.2 CAM Plan Monitoring Approach – Indicator 2 (Secondary)

I. Indicator Monitoring Approach	Opacity trend Opacity is measured continuously with a COMS unit
II. Indicator Range	A clear step change of more than 5% in opacity during isolation of any baghouse module during the normal cleaning sequence.
Corrective Action	An excursion triggers an inspection, corrective action as necessary, and a reporting requirement.
III. Performance Criteria	
A. Data Representativeness	The monitoring system consists of a COMS which monitors the opacity of the exhaust gas stream. The opacity trend is typically monitored in the control room during normal operation and represents a good early warning system to identify potential bag failures within the isolated module.
B. Verification of Operational Status	Continuous opacity data will be collected in accordance with COMAR 26.11.01.10 and COMAR 26.11.31.
C. QA/QC Practices and Criteria	The COMS will be certified in accordance with 40 CFR Part 60, Appendix B. COMS will be calibrated, maintained, and operated according to manufacturer's recommendations. COM data will be collected and validated in accordance with COMAR 26.11.01.10 and COMAR 26.11.31.
D. Monitoring Frequency and Data Collection Procedure	Opacity data are automatically reduced to 6-minute block averages calculated from 36 or more equally spaced data points.
E. Record Keeping	The continuous opacity data collected and corrective actions taken will be maintained for 5 years.
F. Reporting	Report of excursions and corrective actions will be submitted to the Department in a quarterly report.

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Mercury and Air Toxics (MATS) Rule

Facility subject to the National Emissions Standards for Hazardous Air Pollutants from coal and oil-fired Electric Utility Steam Generating Units (EGUs), 40 CFR Part 60, Subpart UUUUU including the requirements listed.

Note: On June 29, 2015, the Supreme Court issued an opinion in Michigan et al v. Environmental Protection Agency. The Supreme Court's decision remands the MATS rule to EPA and returns the matter to the U.S. Court of Appeals for the D.C. Circuit for further proceedings. As of the issuance of this permit, the MATS rule is in effect. The Supreme Court decision in Michigan requires the EPA to undertake additional proceedings for the limited purpose of evaluating costs for its "appropriate and necessary" finding which preceded the MATS rule. Until and unless the MATS rule is stayed and/or vacated by the D.C. Circuit, MATS related conditions in the Title V permit apply. If the MATS rule is stayed and/or vacated or partially stayed and/or vacated, then the affected conditions in the Title V permit will be revised/removed accordingly.

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1.3.0	<p><u>Emissions Unit Number(s): EU-1</u></p> <p>EU-1: One (1) Atmospheric Circulating Fluidized Bed (ACFB) boiler with a designed rated capacity of 2070 MMBtu/hr. of heat input.</p>
1.3.1	<p><u>Applicable Standards/Limits</u></p> <p>40 CFR Part 63, Subpart UUUUU – National Emissions Standards for Hazardous Air Pollutants : Coal and Oil-Fired Electric Utility Steam Generating Units.</p> <p><u>§63.9984 - When do I have to comply with this subpart?</u> “(b) If you have an existing EGU, you must comply with this subpart no later than April 16, 2015.”</p> <p><u>§63.9991 - What emission limitations, work practice standards, and operating limits must I meet?</u> A. <u>Particulate Matter (PM) Emissions</u> §63.9991 – limits filterable particulate matter emissions to 3.0^{E-2} lb./MMBtu or 3.0^{E-1} lb./MWh Compliance is determined by Method 5 stack test (front half temperature shall be 320° ± 25°F) PM is a surrogate for non-mercury metals. [Authority : §63.9991]</p>

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	<p>B. <u>Sulfur Dioxide (SO₂) Emissions</u> §63.9991 – limits SO₂ to 2.0^{E-1} lb./MMBtu or 1.5 lb/MWh. Compliance is determined by SO₂ CEMs: arithmetic average of 30 boiler operating days. [Authority : §63.9991] AES Warrior Run qualifies to use SO₂ as a surrogate for HCl because they operate a fluidized bed. [Authority : §63.10000]</p> <p>C. <u>Mercury (Hg) Emissions</u> §63.9991 – limits mercury emissions to 1.2 lb./TBtu or 1.3^{E-2} lb./GWh. Compliance is determined by sorbent trap monitoring for 30 days (Method 30B). [Authority : §63.9991]</p>
1.3.2	<p><u>Testing Requirements:</u></p> <p>A. <u>Particulate Matter (PM) Emissions</u> AES Warrior Run has qualified as a LEE (low emitting EGU) for PM by conducting 12 quarterly stack test and reporting emissions less than 50% of the standard. [Authority : §63.10005(h), §63.10007 and Table 4 & 5] After demonstrating LEE compliance, you must conduct a performance test at least once every 36 months to demonstrate continued LEE status. [Authority : §63.10000(c)(1)(iii) & §63.10006]</p> <p>B. <u>Sulfur Dioxide (SO₂) Emissions</u> See Monitoring Requirements.</p> <p>C. <u>Mercury (Hg) Emissions</u> AES Warrior Run has qualified as a LEE (low emitting EGU) for Hg by conducting annual tests and reporting emissions less than 10% of the standard. The testing was conducted by 30-day sorbent trap monitoring (Method 30B). To continue to qualify for LEE status, you must conduct a 30-day performance test using Method 30B at least once every 12 calendar months. [Authority : §63.10000(c)(1)(iii) & §63.10004(h)(i)]</p> <p>D. <u>Work Practice Standards</u> Must conduct a tune-up of the EGU burner and combustion controls at least each 36 calendar months. [Authority: 63.9991 – Table 3]</p>
1.3.3	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Particulate Matter (PM) Emissions</u> See Testing Requirements</p>

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	<p>B. <u>Sulfur Dioxide (SO₂) Emissions</u> SO₂ CEM System: must collect quality assured CEM data for all operating conditions. [Authority: §63.10007]; must certify, operate and maintain CEMS according to Part 75. [Authority: §63.10010]; must operate the monitoring system and collect data at all required intervals at all times that the affected EGU is operating except for certain approved periods. [Authority: §63.10020]; must demonstrate continuous compliance with each emission limit, operating limit and work practice standard. [Authority: §63.10021]</p> <p>C. <u>Mercury (Hg) Emissions</u> See Testing Requirements</p>
1.3.4	<p><u>Record Keeping Requirements:</u> Note: All records must be maintained for a period of at least 5 years. [Reference: COMAR 26.11.03.06C(5)(g)]</p> <p>The Permittee must keep records in accordance with §63.10032. [Authority: §63.10032]</p>
1.3.5	<p><u>Reporting Requirements:</u></p> <p>The Permittee: Must submit all notifications required by 60.10030. [Authority: §63.10030] Must submit all reports required by 63.10031. [Authority: §63.10031] Must comply with all requirements for reports required by 63.10031-Table 8. [Authority: §63.10031]</p>

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Table IV–1.4: Cross State Air Pollution Rule (CSAPR)	
1.4.0	<p><u>Emissions Unit Number(s): EU-1</u></p> <p>EU-1: One (1) Atmospheric Circulating Fluidized Bed (ACFB) boiler with a designed rated capacity of 2070 MMBtu/hr. of heat input.</p>
1.4.1	<p><u>Applicable Standards/Limits:</u></p> <p>COMAR 26.11.28.02 - Requirements.</p> <p>A. This chapter incorporates by reference the U.S. EPA CSAPR and the CSAPR Update, including the definitions, criteria, and procedures therein.</p> <p>B. <u>Trading Program Requirements.</u></p> <p>(1) This chapter incorporates by reference provisions of the CSAPR NO_x Annual Trading Program set forth in 40 CFR Part 97, Subpart AAAAA, as published July 1, 2017, and associated reference methods, performance specifications, and other test methods referenced by these standards, as applicable to existing and new units in Maryland, except the provisions at 40 CFR §97.411(b)(2) and (c)(5)(iii), 97.412(b), and 97.421(h) and (j).</p> <p>(2) This chapter incorporates by reference provisions of the CSAPR NO_x Ozone Season Group 3 Trading Program set forth in 40 CFR Part 97, Subpart EEEEE, as published July 1, 2017, and associated reference methods, performance specifications and other test methods referenced by these standards, as applicable to existing and new units in Maryland, except the provisions at 40 CFR §§97.811(b)(2) and (c)(5)(iii), 97.812(b), and 97.821(h) and (j). <i>(This is superseded by Group 3 Subpart GGGGG published April 30, 2021, effective June 29, 2021).</i></p> <p>(3) This chapter incorporates by reference provisions of the CSAPR SO₂ Group 1 Trading Program set forth in 40 CFR Part 97, Subpart CCCCC, as published July 1, 2017, and associated reference methods, performance specifications and other test methods referenced by these standards, as applicable to existing and new units in Maryland, except the provisions at 40 CFR §§97.611(b)(2) and (c)(5)(iii), 97.612(b), and 97.621(h) and (j).</p> <p>A. 40 CFR Part 97 Subpart AAAAA—CSAPR NO_x Annual Trading Program</p> <p>§97.406 - Standard requirements.</p> <p>“(a) <u>Designated representative requirements.</u> The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with §§97.413 through 97.418.</p> <p>(b) <u>Emissions monitoring, reporting, and recordkeeping requirements.</u></p>

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Table IV–1.4: Cross State Air Pollution Rule (CSAPR)

(1) The owners and operators, and the designated representative, of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of §§97.430 through 97.435.

(2) The emissions data determined in accordance with §§97.430 through 97.435 shall be used to calculate allocations of CSAPR NO_x Annual allowances under §§97.411(a)(2) and (b) and 97.412 and to determine compliance with the CSAPR NO_x Annual emissions limitation and assurance provisions under paragraph (c) of this section, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with §§97.430 through 97.435 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

(c) NO_x emissions requirements—(1) CSAPR NO_x Annual emissions limitation. (i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall hold, in the source's compliance account, CSAPR NO_x Annual allowances available for deduction for such control period under §97.424(a) in an amount not less than the tons of total NO_x emissions for such control period from all CSAPR NO_x Annual units at the source.

(ii) If total NO_x emissions during a control period in a given year from the CSAPR NO_x Annual units at a CSAPR NO_x Annual source are in excess of the CSAPR NO_x Annual emissions limitation set forth in paragraph (c)(1)(i) of this section, then:

(A) The owners and operators of the source and each CSAPR NO_x Annual unit at the source shall hold the CSAPR NO_x Annual allowances required for deduction under §97.424(d); and

(B) The owners and operators of the source and each CSAPR NO_x Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart and the Clean Air Act.

(2) CSAPR NO_x Annual assurance provisions. (i) If total NO_x emissions during a control period in a given year from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in a State (and Indian country within the borders of such State) exceed the State assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's

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share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the State and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_x Annual allowances available for deduction for such control period under §97.425(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with §97.425(b), of multiplying—

(A) The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the State (and Indian country within the borders of such State) for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and

(B) The amount by which total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the State (and Indian country within the borders of such State) for such control period exceed the State assurance level.

(ii) The owners and operators shall hold the CSAPR NO_x Annual allowances required under paragraph (c)(2)(i) of this section, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after the year of such control period.

(iii) Total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in a State (and Indian country within the borders of such State) during a control period in a given year exceed the State assurance level if such total NO_x emissions exceed the sum, for such control period, of the State NO_x Annual trading budget under §97.410(a) and the State's variability limit under §97.410(b).

(iv) It shall not be a violation of this subpart or of the Clean Air Act if total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in a State (and Indian country within the borders of such State) during a control period exceed the State assurance level or if a common designated representative's share of total NO_x emissions from the CSAPR NO_x Annual units at CSAPR NO_x Annual sources in a State (and Indian country within the borders of such State) during a control period exceeds the common designated representative's assurance level.

(v) To the extent the owners and operators fail to hold CSAPR NO_x Annual allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) of this section,

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Table IV-1.4: Cross State Air Pollution Rule (CSAPR)

(A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

(B) Each CSAPR NO_x Annual allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) of this section and each day of such control period shall constitute a separate violation of this subpart and the Clean Air Act.

(3) Compliance periods. (i) A CSAPR NO_x Annual unit shall be subject to the requirements under paragraph (c)(1) of this section for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under §97.430(b) and for each control period thereafter.

(ii) A CSAPR NO_x Annual unit shall be subject to the requirements under paragraph (c)(2) of this section for the control period starting on the later of January 1, 2017, or the deadline for meeting the unit's monitor certification requirements under §97.430(b) and for each control period thereafter.

(4) Vintage of CSAPR NO_x Annual allowances held for compliance. (i) A CSAPR NO_x Annual allowance held for compliance with the requirements under paragraph (c)(1)(i) of this section for a control period in a given year must be a CSAPR NO_x Annual allowance that was allocated or auctioned for such control period or a control period in a prior year.

(ii) A CSAPR NO_x Annual allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) of this section for a control period in a given year must be a CSAPR NO_x Annual allowance that was allocated or auctioned for a control period in a prior year or the control period in the given year or in the immediately following year.

(5) Allowance Management System requirements. Each CSAPR NO_x Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with this subpart.

(6) Limited authorization. A CSAPR NO_x Annual allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:

(i) Such authorization shall only be used in accordance with the CSAPR NO_x Annual Trading Program; and

(ii) Notwithstanding any other provision of this subpart, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

(7) Property right. A CSAPR NO_x Annual allowance does not constitute a property right.

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(d) Title V permit requirements. (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_x Annual allowances in accordance with this subpart.

(2) A description of whether a unit is required to monitor and report NO_x emissions using a continuous emission monitoring system (under subpart H of part 75 of this chapter), an excepted monitoring system (under appendices D and E to part 75 of this chapter), a low mass emissions excepted monitoring methodology (under §75.19 of this chapter), or an alternative monitoring system (under subpart E of part 75 of this chapter) in accordance with §§97.430 through 97.435 may be added to, or changed in, a title V permit using minor permit modification procedures in accordance with §§70.7(e)(2) and 71.7(e)(1) of this chapter, provided that the requirements applicable to the described monitoring and reporting (as added or changed, respectively) are already incorporated in such permit. This paragraph explicitly provides that the addition of, or change to, a unit's description as described in the prior sentence is eligible for minor permit modification procedures in accordance with §§70.7(e)(2)(i)(B) and 71.7(e)(1)(i)(B) of this chapter.

(e) Additional recordkeeping and reporting requirements. (1) Unless otherwise provided, the owners and operators of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

(i) The certificate of representation under §97.416 for the designated representative for the source and each CSAPR NO_x Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under §97.416 changing the designated representative.

(ii) All emissions monitoring information, in accordance with this subpart.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_x Annual Trading Program.

(2) The designated representative of a CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall make all submissions required under the CSAPR NO_x Annual Trading Program, except as provided in §97.418. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission

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requirements under a title V operating permit program in parts 70 and 71 of this chapter.

(f) **Liability**. (1) Any provision of the CSAPR NO_x Annual Trading Program that applies to a CSAPR NO_x Annual source or the designated representative of a CSAPR NO_x Annual source shall also apply to the owners and operators of such source and of the CSAPR NO_x Annual units at the source.

(2) Any provision of the CSAPR NO_x Annual Trading Program that applies to a CSAPR NO_x Annual unit or the designated representative of a CSAPR NO_x Annual unit shall also apply to the owners and operators of such unit.

(g) **Effect on other authorities**. No provision of the CSAPR NO_x Annual Trading Program or exemption under §97.405 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_x Annual source or CSAPR NO_x Annual unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.”

B. 40 CFR Part 97 Subpart CCCCC—CSAPR SO₂ Group 1 Trading Program

§97.606 - Standard requirements.

“(a) **Designated representative requirements**. The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with §§97.613 through 97.618.

(b) **Emissions monitoring, reporting, and recordkeeping requirements**. (1) The owners and operators, and the designated representative, of each CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of §§97.630 through 97.635. (2) The emissions data determined in accordance with §§97.630 through 97.635 shall be used to calculate allocations of CSAPR SO₂ Group 1 allowances under §§97.611(a)(2) and (b) and 97.612 and to determine compliance with the CSAPR SO₂ Group 1 emissions limitation and assurance provisions under paragraph (c) of this section, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with §§97.630 through 97.635 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

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(c) SO₂ emissions requirements—(1) CSAPR SO₂ Group 1 emissions limitation. (i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall hold, in the source's compliance account, CSAPR SO₂ Group 1 allowances available for deduction for such control period under §97.624(a) in an amount not less than the tons of total SO₂ emissions for such control period from all CSAPR SO₂ Group 1 units at the source.

(ii) If total SO₂ emissions during a control period in a given year from the CSAPR SO₂ Group 1 units at a CSAPR SO₂ Group 1 source are in excess of the CSAPR SO₂ Group 1 emissions limitation set forth in paragraph (c)(1)(i) of this section, then:

(A) The owners and operators of the source and each CSAPR SO₂ Group 1 unit at the source shall hold the CSAPR SO₂ Group 1 allowances required for deduction under §97.624(d); and

(B) The owners and operators of the source and each CSAPR SO₂ Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart and the Clean Air Act.

(2) CSAPR SO₂ Group 1 assurance provisions. (i) If total SO₂ emissions during a control period in a given year from all CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in a State (and Indian country within the borders of such State) exceed the State assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such SO₂ emissions during such control period exceeds the common designated representative's assurance level for the State and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR SO₂ Group 1 allowances available for deduction for such control period under §97.625(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with §97.625(b), of multiplying—

(A) The quotient of the amount by which the common designated representative's share of such SO₂ emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the State (and Indian country within the borders of such State) for such control period, by which each common designated

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representative's share of such SO₂ emissions exceeds the respective common designated representative's assurance level; and

(B) The amount by which total SO₂ emissions from all CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in the State (and Indian country within the borders of such State) for such control period exceed the State assurance level.

(ii) The owners and operators shall hold the CSAPR SO₂ Group 1 allowances required under paragraph (c)(2)(i) of this section, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after the year of such control period.

(iii) Total SO₂ emissions from all CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in a State (and Indian country within the borders of such State) during a control period in a given year exceed the State assurance level if such total SO₂ emissions exceed the sum, for such control period, of the State SO₂ Group 1 trading budget under §97.610(a) and the State's variability limit under §97.610(b).

(iv) It shall not be a violation of this subpart or of the Clean Air Act if total SO₂ emissions from all CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in a State (and Indian country within the borders of such State) during a control period exceed the State assurance level or if a common designated representative's share of total SO₂ emissions from the CSAPR SO₂ Group 1 units at CSAPR SO₂ Group 1 sources in a State (and Indian country within the borders of such State) during a control period exceeds the common designated representative's assurance level.

(v) To the extent the owners and operators fail to hold CSAPR SO₂ Group 1 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) of this section,

(A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

(B) Each CSAPR SO₂ Group 1 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) of this section and each day of such control period shall constitute a separate violation of this subpart and the Clean Air Act.

(3) Compliance periods. (i) A CSAPR SO₂ Group 1 unit shall be subject to the requirements under paragraph (c)(1) of this section for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under §97.630(b) and for each control period thereafter.

(ii) A CSAPR SO₂ Group 1 unit shall be subject to the requirements under paragraph (c)(2) of this section for the control period starting on the later of January 1, 2017, or the deadline for meeting the unit's monitor

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	<p>certification requirements under §97.630(b) and for each control period thereafter.</p> <p>(4) <u>Vintage of CSAPR SO₂ Group 1 allowances held for compliance.</u> (i) A CSAPR SO₂ Group 1 allowance held for compliance with the requirements under paragraph (c)(1)(i) of this section for a control period in a given year must be a CSAPR SO₂ Group 1 allowance that was allocated or auctioned for such control period or a control period in a prior year.</p> <p>(ii) A CSAPR SO₂ Group 1 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) of this section for a control period in a given year must be a CSAPR SO₂ Group 1 allowance that was allocated or auctioned for a control period in a prior year or the control period in the given year or in the immediately following year.</p> <p>(5) <u>Allowance Management System requirements.</u> Each CSAPR SO₂ Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with this subpart.</p> <p>(6) <u>Limited authorization.</u> A CSAPR SO₂ Group 1 allowance is a limited authorization to emit one ton of SO₂ during the control period in one year. Such authorization is limited in its use and duration as follows:</p> <p>(i) Such authorization shall only be used in accordance with the CSAPR SO₂ Group 1 Trading Program; and</p> <p>(ii) Notwithstanding any other provision of this subpart, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.</p> <p>(7) <u>Property right.</u> A CSAPR SO₂ Group 1 allowance does not constitute a property right.</p> <p>(d) <u>Title V permit requirements.</u> (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR SO₂ Group 1 allowances in accordance with this subpart.</p> <p>(2) A description of whether a unit is required to monitor and report SO₂ emissions using a continuous emission monitoring system (under subpart B of part 75 of this chapter), an excepted monitoring system (under appendices D and E to part 75 of this chapter), a low mass emissions excepted monitoring methodology (under §75.19 of this chapter), or an alternative monitoring system (under subpart E of part 75 of this chapter) in accordance with §§97.630 through 97.635 may be added to, or changed in, a title V permit using minor permit modification procedures in accordance with §§70.7(e)(2) and 71.7(e)(1) of this chapter, provided that the requirements applicable to the described monitoring and reporting (as added or changed, respectively) are already incorporated in</p>

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such permit. This paragraph explicitly provides that the addition of, or change to, a unit's description as described in the prior sentence is eligible for minor permit modification procedures in accordance with §§70.7(e)(2)(i)(B) and 71.7(e)(1)(i)(B) of this chapter.

(e) Additional recordkeeping and reporting requirements. (1) Unless otherwise provided, the owners and operators of each CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

(i) The certificate of representation under §97.616 for the designated representative for the source and each CSAPR SO₂ Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under §97.616 changing the designated representative.

(ii) All emissions monitoring information, in accordance with this subpart.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR SO₂ Group 1 Trading Program.

(2) The designated representative of a CSAPR SO₂ Group 1 source and each CSAPR SO₂ Group 1 unit at the source shall make all submissions required under the CSAPR SO₂ Group 1 Trading Program, except as provided in §97.618. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in parts 70 and 71 of this chapter.

(f) Liability. (1) Any provision of the CSAPR SO₂ Group 1 Trading Program that applies to a CSAPR SO₂ Group 1 source or the designated representative of a CSAPR SO₂ Group 1 source shall also apply to the owners and operators of such source and of the CSAPR SO₂ Group 1 units at the source.

(2) Any provision of the CSAPR SO₂ Group 1 Trading Program that applies to a CSAPR SO₂ Group 1 unit or the designated representative of a CSAPR SO₂ Group 1 unit shall also apply to the owners and operators of such unit.

(g) Effect on other authorities. No provision of the CSAPR SO₂ Group 1 Trading Program or exemption under §97.605 shall be construed as exempting or excluding the owners and operators, and the designated

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	<p>representative, of a CSAPR SO₂ Group 1 source or CSAPR SO₂ Group 1 unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.”</p> <p>C.40 CFR Part 97 Subpart GGGGG - CSAPR NO_x Ozone Season Group 3 Trading Program</p> <p>§97.1006 Standard requirements.</p> <p>(a) <i>Designated representative requirements.</i> The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with §§97.1013 through 97.1018.</p> <p>(b) <i>Emissions monitoring, reporting, and recordkeeping requirements.</i></p> <p>(1) The owners and operators, and the designated representative, of each CSAPR NO_x Ozone Season Group 3 source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of §§97.1030 through 97.1035.</p> <p>(2) The emissions data determined in accordance with §§97.1030 through 97.1035 shall be used to calculate allocations of CSAPR NO_x Ozone Season Group 3 allowances under §§97.1011(a)(2) and (b) and 97.1012 and to determine compliance with the CSAPR NO_x Ozone Season Group 3 emissions limitation and assurance provisions under paragraph (c) of this section, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with §§97.1030 through 97.1035 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.</p> <p>(c) <u>NO_x emissions requirements</u> -</p> <p>(1) <u>CSAPR NO_x Ozone Season Group 3 emissions limitation.</u></p> <p>(i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO_x Ozone Season Group 3 source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall hold, in the source's compliance account, CSAPR NO_x Ozone Season Group 3 allowances available for deduction for such control period under §97.1024(a) in an amount not less than the tons of total NO_x emissions for such control period from all CSAPR NO_x Ozone Season Group 3 units at the source.</p> <p>(ii) If total NO_x emissions during a control period in a given year from the CSAPR NO_x Ozone Season Group 3 units at a CSAPR NO_x Ozone Season Group 3 source are in excess of the CSAPR NO_x Ozone Season</p>

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	<p>Group 3 emissions limitation set forth in paragraph (c)(1)(i) of this section, then:</p> <p>(A) The owners and operators of the source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall hold the CSAPR NO_x Ozone Season Group 3 allowances required for deduction under §97.1024(d); and</p> <p>(B) The owners and operators of the source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart and the Clean Air Act.</p> <p><u>(2) CSAPR NO_x Ozone Season Group 3 assurance provisions.</u></p> <p>(i) If total NO_x emissions during a control period in a given year from all base CSAPR NO_x Ozone Season Group 3 units at base CSAPR NO_x Ozone Season Group 3 sources in a State (and Indian country within the borders of such State) exceed the State assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the State and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_x Ozone Season Group 3 allowances available for deduction for such control period under §97.1025(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with §97.1025(b), of multiplying -</p> <p>(A) The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the State (and Indian country within the borders of such State) for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and</p> <p>(B) The amount by which total NO_x emissions from all base CSAPR NO_x Ozone Season Group 3 units at base CSAPR NO_x Ozone Season Group 3 sources in the State (and Indian country within the borders of such State) for such control period exceed the State assurance level.</p> <p>(ii) The owners and operators shall hold the CSAPR NO_x Ozone Season Group 3 allowances required under paragraph (c)(2)(i) of this section, as of midnight of November 1 (if it is a business day), or midnight of the first</p>

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	<p>business day thereafter (if November 1 is not a business day), immediately after the year of such control period.</p> <p>(iii) Total NO_x emissions from all base CSAPR NO_x Ozone Season Group 3 units at base CSAPR NO_x Ozone Season Group 3 sources in a State (and Indian country within the borders of such State) during a control period in a given year exceed the State assurance level if such total NO_x emissions exceed the sum, for such control period, of the State NO_x Ozone Season Group 3 trading budget under §97.1010(a), the State's variability limit under §97.1010(b), and, for the control period in 2021 only, the product (rounded to the nearest allowance) of 1.21 multiplied by the supplemental amount of CSAPR NO_x Ozone Season Group 3 allowances determined for the State under §97.1010(d).</p> <p>(iv) It shall not be a violation of this subpart or of the Clean Air Act if total NO_x emissions from all base CSAPR NO_x Ozone Season Group 3 units at base CSAPR NO_x Ozone Season Group 3 sources in a State (and Indian country within the borders of such State) during a control period exceed the State assurance level or if a common designated representative's share of total NO_x emissions from the base CSAPR NO_x Ozone Season Group 3 units at base CSAPR NO_x Ozone Season Group 3 sources in a State (and Indian country within the borders of such State) during a control period exceeds the common designated representative's assurance level.</p> <p>(v) To the extent the owners and operators fail to hold CSAPR NO_x Ozone Season Group 3 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) of this section:</p> <p>(A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and</p> <p>(B) Each CSAPR NO_x Ozone Season Group 3 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) of this section and each day of such control period shall constitute a separate violation of this subpart and the Clean Air Act.</p> <p>(3) <u>Compliance periods.</u></p> <p>(i) A CSAPR NO_x Ozone Season Group 3 unit shall be subject to the requirements under paragraph (c)(1) of this section for the control period starting on the later of May 1, 2021, or the deadline for meeting the unit's monitor certification requirements under §97.1030(b) and for each control period thereafter.</p> <p>(ii) A base CSAPR NO_x Ozone Season Group 3 unit shall be subject to the requirements under paragraph (c)(2) of this section for the control period starting on the later of May 1, 2021, or the deadline for meeting the unit's monitor certification requirements under §97.1030(b) and for each control period thereafter.</p>

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(4) Vintage of CSAPR NO_x Ozone Season Group 3 allowances held for compliance.

(i) A CSAPR NO_x Ozone Season Group 3 allowance held for compliance with the requirements under paragraph (c)(1)(i) of this section for a control period in a given year must be a CSAPR NO_x Ozone Season Group 3 allowance that was allocated or auctioned for such control period or a control period in a prior year.

(ii) A CSAPR NO_x Ozone Season Group 3 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (c)(2)(i) through (iii) of this section for a control period in a given year must be a CSAPR NO_x Ozone Season Group 3 allowance that was allocated or auctioned for a control period in a prior year or the control period in the given year or in the immediately following year.

(5) Allowance Management System requirements. Each CSAPR NO_x Ozone Season Group 3 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with this subpart.

(6) Limited authorization. A CSAPR NO_x Ozone Season Group 3 allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:

(i) Such authorization shall only be used in accordance with the CSAPR NO_x Ozone Season Group 3 Trading Program; and

(ii) Notwithstanding any other provision of this subpart, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

(7) Property right. A CSAPR NO_x Ozone Season Group 3 allowance does not constitute a property right.

(d) Title V permit requirements.

(1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_x Ozone Season Group 3 allowances in accordance with this subpart.

(2) A description of whether a unit is required to monitor and report NO_x emissions using a continuous emission monitoring system (under subpart H of part 75 of this chapter), an excepted monitoring system (under appendices D and E to part 75 of this chapter), a low mass emissions excepted monitoring methodology (under §75.19 of this chapter), or an alternative monitoring system (under subpart E of part 75 of this chapter) in accordance with §§97.1030 through 97.1035 may be added to, or changed in, a title V permit using minor permit modification procedures in accordance with §§70.7(e)(2) and 71.7(e)(1) of this chapter, provided that the requirements applicable to the described monitoring and

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reporting (as added or changed, respectively) are already incorporated in such permit. This paragraph explicitly provides that the addition of, or change to, a unit's description as described in the prior sentence is eligible for minor permit modification procedures in accordance with §§70.7(e)(2)(i)(B) and 71.7(e)(1)(i)(B) of this chapter.

(e) Additional recordkeeping and reporting requirements.

(1) Unless otherwise provided, the owners and operators of each CSAPR NO_x Ozone Season Group 3 source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

(i) The certificate of representation under §97.1016 for the designated representative for the source and each CSAPR NO_x Ozone Season Group 3 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under §97.1016 changing the designated representative.

(ii) All emissions monitoring information, in accordance with this subpart.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_x Ozone Season Group 3 Trading Program.

(2) The designated representative of a CSAPR NO_x Ozone Season Group 3 source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall make all submissions required under the CSAPR NO_x Ozone Season Group 3 Trading Program, except as provided in §97.1018. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in parts 70 and 71 of this chapter.

(f) Liability.

(1) Any provision of the CSAPR NO_x Ozone Season Group 3 Trading Program that applies to a CSAPR NO_x Ozone Season Group 3 source or the designated representative of a CSAPR NO_x Ozone Season Group 3 source shall also apply to the owners and operators of such source and of the CSAPR NO_x Ozone Season Group 3 units at the source.

(2) Any provision of the CSAPR NO_x Ozone Season Group 3 Trading Program that applies to a CSAPR NO_x Ozone Season Group 3 unit or

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Table IV–1.4: Cross State Air Pollution Rule (CSAPR)	
	<p>the designated representative of a CSAPR NO_x Ozone Season Group 3 unit shall also apply to the owners and operators of such unit.</p> <p>(g) <u>Effect on other authorities.</u> No provision of the CSAPR NO_x Ozone Season Group 3 Trading Program or exemption under §97.1005 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_x Ozone Season Group 3 source or CSAPR NO_x Ozone Season Group 3 unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.</p>
1.4.2	<p><u>Testing Requirements:</u></p> <p>A. 40 CFR Part 97 Subpart AAAAA—CSAPR NO_x Annual Trading Program See Monitoring Requirements.</p> <p>B. 40 CFR Part 97 Subpart CCCCC - CSAPR SO₂ Group 1 Trading Program See Monitoring Requirements.</p> <p>C. 40 CFR Part 97 Subpart GGGGG—CSAPR NO_x Ozone Season Group 3 Trading Program See Monitoring Requirements.</p>
1.4.3	<p><u>Monitoring Requirements:</u></p> <p>A. 40 CFR Part 97 Subpart AAAAA - CSAPR NO_x Annual Trading Program The Permittee shall comply with the monitoring requirements found in §97.406, §97.430, §97.431, §97.432 and §97.433 for the NO_x Annual Trading Program.</p> <p>B. 40 CFR Part 97 Subpart CCCCC - CSAPR SO₂ Group 1 Trading Program The Permittee shall comply with the monitoring requirements found in §97.606, §97.630, §97.631, §97.632, and §97.633.</p> <p>The Permittee operates continuous emission monitoring system (CEMS) pursuant to 40 CFR Part 75, Subpart B (for SO₂ monitoring) and 40 CFR Part 75, Subpart H (for NO_x monitoring).</p> <p>C. 40 CFR Part 97 Subpart GGGGG—CSAPR NO_x Ozone Season Group 3 Trading Program</p>

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Table IV–1.4: Cross State Air Pollution Rule (CSAPR)	
	The Permittee shall comply with the monitoring requirements found in §97.1006; §97.1030; §97.1031, §97.1032, and §97.1033 for the NO _x Ozone Season Group 3 Trading Program.
1.4.4	<p><u>Record Keeping Requirements:</u> Note: All records must be maintained for a period of at least 5 years. [Reference: COMAR 26.11.03.06C(5)(g)]</p> <p>A. 40 CFR Part 97 Subpart AAAAA - CSAPR NO_x Annual Trading Program The Permittee shall comply with the recordkeeping requirements found in §97.406, §97.430, and §97.434 for the NO_x Annual Trading Program.</p> <p>B. 40 CFR Part 97 Subpart CCCCC - CSAPR SO₂ Group 1 Trading Program The Permittee shall comply with the recordkeeping requirements found in §97.606, §97.630, and §97.634.</p> <p>C. 40 CFR Part 97 Subpart GGGGG—CSAPR NO_x Ozone Season Group 3 Trading Program The Permittee shall comply with the recordkeeping requirements found in §97.1006; §97.1030 and §97.1034 for the NO_x Ozone Season Group 3 Trading Program.</p>
1.4.5	<p><u>Reporting Requirements:</u></p> <p>A. 40 CFR Part 97 Subpart AAAAA - CSAPR NO_x Annual Trading Program The Permittee shall comply with the reporting requirements found in §97.406, §97.430, §97.433 and §97.434 for the NO_x Annual Trading Program.</p> <p>B. 40 CFR Part 97 Subpart CCCCC - CSAPR SO₂ Group 1 Trading Program The Permittee shall comply with the reporting requirements found in §97.606, §97.630, §97.633 and §97.634.</p> <p>C. 40 CFR Part 97 Subpart GGGGG—CSAPR NO_x Ozone Season Group 3 Trading Program The Permittee shall comply with the reporting requirements found in §97.1006; §97.1030 and §97.1034 for the NO_x Ozone Season Group 3 Trading Program.</p>

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A permit shield shall cover the applicable requirements identified for the emissions units listed in the above table.

Table IV – 2	
2.0	<p><u>Emissions Unit Number(s): EU-2</u></p> <p><u>EU-2</u>: One (1) limestone truck unloading operation controlled by a baghouse.</p>
2.1	<p><u>Applicable Standards/Limits</u></p> <p>A. Visible Emissions</p> <p>1. COMAR 26.11.06.02C (1), which prohibits the discharge of visible emissions from any installation other than water in an uncombined form, which is greater than 20% opacity.” [Note: This applies to baghouse discharge].</p> <p>Exception - COMAR 26.1106.2(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:</p> <p>a. The visible emissions are not greater than 40 percent opacity; and</p> <p>b. The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period.</p> <p><u>Note</u>: The same monitoring, record keeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and COMAR 26.11.06.02C (1).</p> <p>2. 40 CFR §60.672(a), which prohibits the discharge into the atmosphere from any transfer point on belt conveyors or from any other affected facility, any stack emissions which exhibit greater than 7 percent opacity for dry control devices.</p> <p>3. 40 CFR §60.672(b), which prohibits the discharge into the atmosphere from any transfer point on belt conveyors or from any other affected facility, any fugitive emissions, which exhibit greater than 10 percent opacity, except as provided in paragraphs (d), (e) and (f) of §60.672.</p>

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Table IV – 2	
	<p>4. 40 CFR 60 Part 60.672(e), which requires any transfer points on a conveyors belt or any other affected facility enclosed in a building to comply with the emissions limits in paragraph (a) and (b) of §60.672 or the building enclosing the affected facility or facilities must comply with the emission limits of §60.672(e)(1) and (2).</p> <p>B. Particulate Emissions from confined sources (baghouse)</p> <p>1. 40 CFR §60.672(a), which prohibits stack emissions, which contain particulate matter in excess of 0.022 gr/scfd (0.05 g/dscm).</p> <p>2. PSD Approval No. 94-01A, which required the limestone unloading baghouse to be designed to achieve a particulate matter emissions limit of 0.002 grains/actual cubic feet.</p> <p><u>Note:</u> 1 and 2 apply to the baghouse exhaust. For particulate emissions from unconfined sources see Table IV – 10 for requirements relating to fugitive emissions from limestone unloading operations. The same monitoring, record keeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and the PSD limit.</p>
2.2	<p><u>Testing Requirements:</u></p> <p>A. Visible Emissions</p> <p>See monitoring requirement</p> <p>B. Particulate Emissions from confined sources (baghouse)</p> <p>See monitoring requirement</p>
2.3	<p><u>Monitoring Requirements:</u></p> <p>A. Visible Emissions</p> <p>The Permittee shall perform a visual observation of the baghouse exhaust and the doors, windows, vents, or other openings in the building for visible emissions once a month for 1 minute. The observations shall be made while affected facilities are operating. If emissions in the exhaust gases are visible, the Permittee shall perform the following:</p>

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Table IV – 2	
	<ol style="list-style-type: none"> 1. Inspect all process and/or control equipment that may affect visible emissions; 2. Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases or fugitive emissions from the building openings are eliminated; 3. Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and 4. If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions. [Authority: COMAR 26.11.03.06C] <p>B. Particulate Emissions from confined sources (baghouse)</p> <p>The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed. [Authority: COMAR 26.11.03.06C].</p>
2.4	<p><u>Record Keeping Requirements:</u></p> <p>A. Visible Emissions</p> <p>The Permittee shall maintain a record of the results of all visual emission observations. [Authority: COMAR 26.11.03.06C]</p> <p>B. Particulate Emissions from confined sources (baghouse)</p> <p>The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. [Authority: COMAR 26.11.03.06C]</p>
2.5	<p><u>Reporting Requirements:</u></p> <p>A. Visible Emissions</p> <p>The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations” [Authority: COMAR 26.11.03.06C].</p>

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Table IV – 2	
	<p>B. Particulate Emissions from confined sources (baghouse)</p> <p>The Permittee shall submit maintenance records when requested by the Department. [Authority: COMAR 26.11.03.06C].</p>

A permit shield shall cover the applicable requirements identified for the emissions units listed in the above table.

Table IV – 3	
3.0	<p><u>Emissions Unit Number(s): EU-3 & EU-4</u></p> <p>EU-3 and EU-4: Two (2) parallel limestone crushing and drying systems, each comprising of one Raymond roller mill rated at 20 tons per hour, one (1) Eclipse natural gas and No. 2 fuel oil–fired limestone dryer rated at 5 MMBtu/hr. heat input, and a conveyor rated at 30 tons per hour capacity. Emissions are controlled with a bag house.</p>
3.1	<p><u>Applicable Standards/Limits :</u></p> <p>A. Visible Emissions</p> <p>1. COMAR 26.11.06.02C(1), which prohibits the discharge of visible emissions from any installation other than water in an uncombined form, which is greater than 20% opacity. [Baghouse exhaust on Raymond mill and conveyor].</p> <p>Exception- COMAR 26.1106.2C(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:</p> <ul style="list-style-type: none"> a. The visible emissions are not greater than 40 percent opacity; and b. The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period. <p>2. 40 CFR §60.672(a) – NSPS Subpart OOO, which prohibits the discharge into the atmosphere from any transfer point on belt conveyors or from any other affected facility, any stack emissions which exhibit greater than 7 percent opacity. [Raymond mill controlled with a baghouse].</p>

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Table IV – 3

- 3. 40 CFR 60 Part 60.672(e) - NSPS Subpart OOO**, which requires any transfer point on a conveyer belt or any other affected facility in an enclosed building to comply with the emissions limits of paragraph (a) and (b) of **§60.672** or the building enclosing the affected facility or facilities must comply with the emission limits of §60.672(e)(1) and (2).

Note: The same monitoring, record keeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and COMAR 26.11.06.02C.

B. Particulate Emissions

1. **40 CFR §60.672(a) - NSPS Subpart OOO**, which prohibits stack emissions which contain particulate matter in excess of 0.022 gr/scfd (0.05 g/dscm).
2. **PSD No. 94-01A**, which requires the Raymond mill/dryer system to be designed to meet a particulate emissions limit of 0.055 lbs/MMBtu heat input.
3. **PSD No. 94-01A**, which requires the fabric filter baghouse on the mill/dryer system to be designed to meet a limit of 0.002 grains/actual cubic feet.

Note: The same monitoring, record keeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and the PSD limit.

C. Sulfur Dioxide Emissions

1. **PSD Approval No. 94-01A**, which requires the Raymond mill/limestone dryers to be designed to achieve an SO₂ emissions limit of 0.052 lbs./MMBtu of heat input.
2. **PSD Approval No. 94-01A**, which limit the maximum sulfur content of the fuel to 0.05% by weight.

Note: The SO₂ limit of 0.052 lbs./MMBtu is equivalent to 0.05% sulfur content by weight.

D. NO_x Emissions

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Table IV – 3	
	<p>1. PSD Approval # 94-01A, which requires the Raymond mill and limestone dryers to be designed to achieve a NOx emissions limit of 0.24 lbs./MMBtu of heat input.</p> <p>2. COMAR 26.11.09.08B (1) (c), which sets emission standards in pounds of NOx per MMBtu of heat input. For Gas/Oil-fired units the limit is 0.25 lbs./MMBtu.</p> <p>E. CO and VOC Emissions</p> <p>PSD Approval No. 94-01A, which requires the Raymond mill/ limestone dryers to be designed to achieve emissions as follows:</p> <p>CO: 0.068 lbs./MMBtu of heat input VOC: 0.002 lbs./MMBtu of heat input</p> <p>F. Operating Limit</p> <p>PSD Approval No. 94-01A, which limits the combined annual operating hours for both dryers to 8760 hours on a rolling basis.</p>
3.2	<p><u>Testing Requirements:</u></p> <p>A. Visible Emissions</p> <p>See monitoring requirements</p> <p>B. Particulate Emissions</p> <p>See monitoring requirements</p> <p>C. Sulfur Dioxide Emissions</p> <p>See monitoring requirements</p> <p>D. NOx Emissions</p> <p>See monitoring requirements</p> <p>E. CO and VOC Emissions</p>

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Table IV – 3	
	<p>See monitoring requirements</p> <p>F. Operating Limit</p> <p>See monitoring requirements</p>
3.3	<p><u>Monitoring Requirements:</u></p> <p>A. Visible Emissions</p> <p>The Permittee shall visually inspect the exhaust gases from each baghouse stack when the drying and crushing system is operating for visible emissions once a month for 1 minute and shall record the results of each observation. If visible emissions are observed, the Permittee shall perform the following:</p> <ol style="list-style-type: none"> a. Inspect all process and/or control equipment that may affect visible emissions; b. Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated; c. Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and d. If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions. [Authority: COMAR 26.11.03.06C]. <p>B. Particulate Emissions</p> <p>The Permittee shall develop and maintain a preventative maintenance plan, for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed. [Authority: COMAR 26.11.03.06C].</p>

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Table IV – 3	
	<p>C. Sulfur Dioxide Emissions</p> <p>The Permittee shall obtain fuel supplier, certification indicating that the oil complies with the limitation on sulfur content of the fuel oil [Authority: COMAR 26.11.03.06C].</p> <p>D. NOx Emissions</p> <p>The Permittee shall perform a combustion analysis for each Eclipse dryer at least once each calendar year and optimize combustion based on analysis [Authority: COMAR 26.11.03.06C].</p> <p>E. CO and VOC Emissions</p> <p>The Permittee shall properly operate and maintain the Raymond mill/limestone dryers; and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance. [Authority: COMAR 26.11.03.06]</p> <p>F. Operating Limit:</p> <p>The Permittee shall keep track of the hours of operation for each limestone dryer so as to determine compliance with the limitation of PSD Approval # 94-01A.</p>
3.4	<p><u>Record Keeping Requirements:</u></p> <p>A. Visible Emissions</p> <p>The Permittee shall maintain a record of the results of all visual emission observations. [Authority: COMAR 26.11.03.06C].</p> <p>B. Particulate Emissions</p> <p>The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. [Authority: COMAR 26.11.03.06C]</p>

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Table IV – 3	
	<p>C. Sulfur Dioxide Emissions</p> <p>The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation. [Authority: COMAR 26.11.03.06C]</p> <p>D. NOx Emissions</p> <p>The Permittee shall maintain records of the annual combustion analyses. [Authority: COMAR 26.11.03.06C]</p> <p>E. CO and VOC Emissions</p> <p>The Permittee shall maintain log of maintenance performed on the Raymond mill/limestone dryer systems that relate to combustion performance. [Authority: COMAR 26.11.03.06C]</p> <p>F. Operating Limit</p> <p>The Permittee shall keep monthly records of the daily operating hours of each dryer. [Authority: PTC 001-6-0136A]</p>
3.5	<p><u>Reporting Requirements:</u></p> <p>A. Visible Emissions</p> <p>The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations” [Authority: COMAR 26.11.03.06C]</p> <p>B. Particulate Emissions</p> <p>The Permittee shall submit maintenance records when requested by the Department. [Authority: COMAR 26.11.03.06C]</p> <p>C. Sulfur Dioxide Emissions</p> <p>The Permittee shall submit records of sulfur in fuel certifications to the Department upon request. [Authority: COMAR 26.11.03.06C]</p>

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Table IV – 3	
	<p>D. NOx Emissions</p> <p>The Permittee shall report the results of combustion analyses to the Department upon request. [Authority: COMAR 26.11.03.06C].</p> <p>E. CO and VOC Emissions</p> <p>The Permittee shall submit records of the maintenance performed on the two limestone dryers upon request by the Department [Authority: COMAR 26.11.03.06C]</p> <p>F. Operating Limit</p> <p>The Permittee shall submit the hours of operation of the two limestone dryers as an attachment to the annual emissions certification report [Authority: COMAR 26.11.03.06C]</p>

A permit shield shall cover the applicable requirements identified for the emissions units listed in the above table.

Table IV – 4	
4.0	<p><u>Emission Unit Number(s): EU-5</u></p> <p>EU-5: Limestone Storage Silo</p>
4.1	<p><u>Applicable Standards/Limits :</u></p> <p>A. Visible Emissions</p> <p>1. COMAR 26.11.06.02C (1) which limits the discharge of visible emissions from any installation other than water in an uncombined form, which is greater than 20% opacity.</p> <p>Exception- COMAR 26.1106.2C(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:</p> <p>a. The visible emissions are not greater than 40 percent opacity; and</p> <p>b. The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period.</p>

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Table IV – 4	
	<p>2. 40 CFR §60.672(a) and (f) – which prohibits stack emissions which exhibit greater than 7 percent opacity from a baghouse that controls emissions from a single enclosed storage bin.</p> <p>Note: The monitoring, record keeping, and reporting strategy to demonstrate compliance with the NSPS opacity standard will be used for the compliance demonstration of the COMAR opacity standard.</p> <p>B. Particulate Emissions</p> <p>1. PSD Approval No. 94-01A – which required the fabric filter baghouse to be designed to achieve a particulate matter emissions limit of 0.003 grains/actual cubic feet.</p> <p>2. 40 CFR §60.672(a) (1) – NSPS Subpart OOO, which prohibits stack emissions that contain particulate matter in excess of 0.022 gr/dscf (0.05 g/dscm).</p> <p>Note: The monitoring, record keeping and reporting strategy to demonstrate compliance with the PSD BACT limit will be used for the compliance demonstration of the NSPS standard.</p>
4.2	<p><u>Testing Requirements:</u></p> <p>A. Visible Emissions</p> <p>See Monitoring Emissions.</p> <p>B. Particulate Emissions</p> <p>See Monitoring Emissions.</p>
4.3	<p><u>Monitoring Requirements:</u></p> <p>A. Visible Emissions</p> <p>The Permittee shall visually inspect the exhaust gases from each baghouse stack when a silo is being filled for visible emissions once a month for 1 minute and shall record the results of each observation. If emissions in the exhaust gases are visible, the Permittee shall perform the following:</p> <p>a. Inspect all process and/or control equipment that may affect visible emissions;</p>

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Table IV – 4	
	<p>b. Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated;</p> <p>c. Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and</p> <p>d. If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions. [Authority: COMAR 26.11.03.06C].</p> <p>B. Particulate Emissions</p> <p>The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed. [Authority: COMAR 26.11.03.06C]</p>
4.4	<p><u>Record Keeping Requirements:</u></p> <p>A. Visible Emissions</p> <p>The Permittee shall maintain a record of the results of all visual emission observations. [Authority: COMAR 26.11.03.06C].</p> <p>B. Particulate Emissions</p> <p>The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. [Authority: COMAR 26.11.03.06C]</p>
4.5	<p><u>Reporting Requirements:</u></p> <p>A. Visible Emissions</p> <p>The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations”. [Authority: COMAR 26.11.03.06C].</p>

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Table IV – 4	
	<p>B. Particulate Emissions</p> <p>The Permittee shall submit maintenance records when requested by the Department. [Authority: COMAR 26.11.03.06C].</p>

A permit shield shall cover the applicable requirements identified for the emissions units listed in the above table.

Table IV – 5	
5.0	<p><u>Emissions Unit Number(s): EU-6, EU-7, & EU-8</u></p> <p>EU-6: Coal truck unloading operation controlled by a baghouse.</p> <p>EU-7: Coal processing operation comprising of two crushers, two vibrating feeders, one surge bin, two enclosed reclaim conveyors, one enclosed stockpile conveyor and one enclosed transfer conveyor, each located inside coal crusher building. Emissions are controlled by a baghouse.</p> <p>EU-8: Coal storage system consisting of four (4) coal storage silos, controlled by a baghouse.</p>
5.1	<p><u>Applicable Standards/Limits :</u></p> <p>A. Visible Emissions</p> <p>1. COMAR 26.11.06.02C(1), which limits the discharge of visible emissions from any installations, other than water in an uncombined form, which is greater than 20% opacity</p> <p style="margin-left: 40px;">Exception- COMAR 26.1106.2C(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:</p> <p style="margin-left: 80px;">a. The visible emissions are not greater than 40 percent opacity; and</p> <p style="margin-left: 80px;">b. The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period.</p> <p>2. 40 CFR §60.254(a) – NSPS Subpart Y, which prohibits visible emissions from the stack, which exhibit greater than 20 percent opacity.</p>

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	<p style="text-align: center;">Note: The monitoring, record keeping, and reporting strategy to demonstrate compliance with the NSPS opacity standard will be used for the compliance demonstration of the COMAR opacity standard.</p> <p>B. Particulate Emissions from confined sources (baghouses)</p> <p>PSD Approval # 94-01A: which requires the baghouses to be designed to achieve particulate emissions limit of 0.003 grains per actual cubic feet.</p>
5.2	<p><u>Testing Requirements:</u></p> <p>A. Visible Emissions</p> <p style="padding-left: 40px;">See monitoring requirements</p> <p>B. Particulate Emissions from confined sources (baghouses)</p> <p style="padding-left: 40px;">See monitoring requirements</p>
5.3	<p><u>Monitoring Requirements:</u></p> <p>A. Visible Emissions</p> <p>The Permittee shall visually inspect the exhaust gases from each baghouse stack when coal is being handled or crushed for visible emissions once a month for 1 minute and shall record the results of each observation. If emissions in the exhaust gases are visible, the Permittee shall perform the following:</p> <ol style="list-style-type: none"> a. Inspect all process and/or control equipment that may affect visible emissions; b. Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated; c. Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and d. If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions. [Authority: COMAR 26.11.03.06C]

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	<p>B. Particulate Emissions from confined sources (baghouses)</p> <p>The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed. [Authority: COMAR 26.11.03.06C.]</p>
5.4	<p><u>Record Keeping Requirements:</u></p> <p>A. Visible Emissions</p> <p>The Permittee shall maintain a record of the results of all visual emission observations [Authority: COMAR 26.11.03.06C.].</p> <p>B. Particulate Emissions from confined sources (baghouses)</p> <p>The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. [Authority: COMAR 26.11.03.06C.]</p>
5.5	<p><u>Reporting Requirements:</u></p> <p>A. Visible Emissions</p> <p>The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations” [Authority: COMAR 26.11.03.06C.].</p> <p>B. Particulate Emissions from confined sources (baghouses)</p> <p>The Permittee shall submit maintenance records when requested by the Department. [Authority: COMAR 26.11.03.06C.]</p>

A permit shield shall cover the applicable requirements identified for the emissions units listed in the above table.

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6.0	<p><u>Emissions Unit Number(s): EU-9, EU-10, & EU-11</u></p> <p>EU-9: Bed ash day bin equipped with a baghouse.</p> <p>EU-10: Bed ash storage silo equipped with a baghouse.</p> <p>EU-11: Fly ash storage silo equipped with a baghouse.</p>
6.1	<p><u>Applicable Standards/Limits :</u></p> <p>A. Visible Emissions Limitations</p> <p>COMAR 26.11.06.02C (1), which limits the discharge of visible emissions from any installation other than water in an uncombined form, which is greater than 20% opacity.</p> <p>Exception- COMAR 26.1106.2C(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:</p> <ol style="list-style-type: none"> a. The visible emissions are not greater than 40 percent opacity; and b. The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period <p>B. Particulate Emissions</p> <p>PSD Approval # 94-01A, which requires the fabric filter baghouses to be designed to achieve a particulate emissions limit of 0.003 grains/actual cubic feet.</p> <p><u>Note:</u> Particulate Emissions from unconfined sources. See Table IV – 10 for requirements relating to fugitive emissions from the ash handling and load out operations.</p>
6.2	<p><u>Testing Requirements:</u></p> <p>A. Visible Emissions Limitations</p> <p>See Monitoring Requirements</p> <p>B. Particulate Emissions</p> <p>See Monitoring Requirements</p>

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6.3	<p><u>Monitoring Requirements:</u></p> <p>A. Visible Emissions Limitations</p> <p>The Permittee shall visually inspect the exhaust gases from each baghouse stack when a bin/silo is being filled for visible emissions once a month for 1 minute and shall record the results of each observation. If emissions in the exhaust gases are visible, the Permittee shall perform the following:</p> <ol style="list-style-type: none"> a. Inspect all process and/or control equipment that may affect visible emissions; b. Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated; c. Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and d. If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions. [Authority: COMAR 26.11.03.06C]. <p>B. Particulate Emissions</p> <p>The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed. [Authority: COMAR 26.11.03.06C]</p>
6.4	<p><u>Record Keeping Requirements:</u></p> <p>A. Visible Emissions Limitations</p> <p>The Permittee shall maintain a record of the results of all visual emission observations. [Authority: COMAR 26.11.03.06C].</p> <p>B. Particulate Emissions</p> <p>The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be</p>

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	made available to the Department upon request. [Authority: COMAR 26.11.03.06C] .
6.5	<p><u>Reporting Requirements:</u></p> <p>A. Visible Emissions Limitations</p> <p>The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations” [Authority: COMAR 26.11.03.06C].</p> <p>B. Particulate Emissions</p> <p>The Permittee shall submit maintenance records when requested by the Department. [Authority: COMAR 26.11.03.06C].</p>

A permit shield shall cover the applicable requirements identified for the emissions units listed in the above table.

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7.0	<p><u>Emissions Unit Number(s): EU-12</u></p> <p>EU-12: One diesel engine driven emergency boiler Feed Water Pump rated at 525 bhp.</p>
7.1	<p><u>Applicable Standards/Limits :</u></p> <p>A. Visible Emissions :</p> <ol style="list-style-type: none"> 1. COMAR 26.11.09.05E (2) Emissions During Idle Mode. A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity. 2. COMAR 26.11.09.05E (3) Emissions During Operating Mode. A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity. 3. COMAR 26.11.09.05E (4) - Exceptions: <ol style="list-style-type: none"> a. Section E (2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

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- b. Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
 - i. Engines that are idled continuously when not in service: 30 minutes;
 - ii. All other engines: 15 minutes.
- c. Section E (2) and (3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics.

B. Particulate Matter Emissions:

PSD Approval No. 94-01A which requires the emergency boiler feed water pump to be designed to achieve a particulate emissions limit of 0.341 lb/MMBtu of heat input.

C. Sulfur Dioxide Emissions:

- 1. **PSD Approval No. 94-01A**, which requires the emergency boiler feed water pump to be designed to achieve a sulfur dioxide emissions limit of 0.052 lbs./MMBtu of heat input.
- 2. **PSD Approval No. 94-01A**, which limits the maximum sulfur content of the fuel to 0.05% by weight.

Note: The SO₂ limit of 0.052 lbs./MMBtu is equivalent to 0.05% by weight.

D. NOx Emissions:

- 1. **COMAR 26.11.09.08G**, which requires a person who owns or operates fuel burning equipment with a capacity factor of 15 percent or less to:
 - a. Provide certification of the capacity factor of the equipment to the Department in writing;
 - b. For fuel-burning equipment that operates more 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
 - c. Maintain the results of the combustion analysis at the site for at least five years and make these results available to the Department and EPA upon request;

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	<p>d. Require each operator of an installation except combustion turbine, to attend at least once every three years, operator training program on combustion optimization that are sponsored by the Department, U.S. EPA, or equipment vendors; and</p> <p>e. Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.</p> <p>2. COMAR 26.11.09.08K(3) which requires the Permittee to maintain annual fuel use records on site for at least five years and make records available to the Department upon request.</p> <p>3. PSD Approval No. 94-01A, which requires the emergency boiler feed water pump engine to be designed to achieve a limit of 3.439 lb/MMBtu.</p> <p>E. CO and VOC Emissions:</p> <p>PSD Approval # 94-01A, which requires the emergency boiler feed water pump engine to be designed to achieve emissions as follows:</p> <p>CO: 0.902 lbs./MMBtu of heat input VOC: 0.098 lbs./MMBtu of heat input</p> <p>F. Operational Limitations:</p> <p>The operation of the emergency boiler feed water pump during non-emergency operations is limited to one hour per day and 200 hours per 12 months (rolled monthly). [Authority: PSD Approval No. 94-01A]</p>
7.2	<p><u>Testing Requirements:</u></p> <p>A. Visible Emissions :</p> <p>See Monitoring Requirements.</p> <p>B. Particulate Matter Emissions:</p> <p>See Monitoring Requirements.</p> <p>C. Sulfur Dioxide Emissions:</p>

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	<p>See Monitoring Requirements.</p> <p>D. NOx Emissions:</p> <p>See Monitoring Requirements.</p> <p>E. CO and VOC Emissions:</p> <p>See Monitoring Requirements.</p> <p>F. Operational Limitations:</p> <p>See Monitoring Requirements.</p>
7.3	<p><u>Monitoring Requirements:</u></p> <p>A. Visible Emissions:</p> <p>The Permittee shall properly operate and maintain the engine and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance [Authority: COMAR 26.11.03.06].</p> <p>B. Particulate Matter Emissions:</p> <p>The Permittee shall properly operate and maintain the engine and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance [Authority: COMAR 26.11.03.06].</p> <p>C. Sulfur Dioxide Emissions:</p> <p>The Permittee shall obtain fuel suppliers' certification indicating that the oil complies with the limitation on sulfur content of the fuel [Authority: COMAR 26.11.03.06C].</p> <p>D. NOx Emissions:</p> <p>The Permittee shall properly operate and maintain the engine; and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance. [Authority: COMAR 26.11.03.06].</p> <p>E. CO and VOC Emissions:</p>

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	<p>The Permittee shall properly operate and maintain the engine; and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance. [Authority: COMAR 26.11.03.06].</p> <p>F. Operational Limitations:</p> <p>See Record Keeping Requirements.</p>
7.4	<p><u>Record Keeping Requirements:</u></p> <p>A. Visible Emissions:</p> <p>The Permittee shall maintain log of maintenance performed on the diesel engine that relates to combustion performance. [Authority: COMAR 26.11.03.06C]</p> <p>B. Particulate Matter Emissions:</p> <p>The Permittee shall maintain log of maintenance performed on the diesel engine that relates to combustion performance. [Authority: COMAR 26.11.03.06C]</p> <p>C. Sulfur Dioxide Emissions:</p> <p>Maintain records of fuel suppliers' certification for 5 years [Authority: COMAR 26.11.03.06C].</p> <p>D. NOx Emissions:</p> <p>The Permittee shall maintain log of maintenance performed on the diesel engine that relates to combustion performance. [Authority: COMAR 26.11.03.06C].</p> <p>E. CO and VOC Emissions:</p> <p>The Permittee shall maintain log of maintenance performed on the diesel engine that relates to combustion performance. [Authority: COMAR 26.11.03.06C].</p> <p>F. Operational Limitations:</p>

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	Maintain records of the hours of operation of the diesel engine for 5 years. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. [Authority: PTC No. 001-4-0080 A].
7.5	<p><u>Reporting Requirements:</u></p> <p>A. Visible Emissions:</p> <p>Report incidents of visible emissions in accordance with condition 4 of Section III “Report of Excess Emissions and Deviation. [Authority: COMAR 26.11.03.06C]</p> <p>B. Particulate Matter Emissions:</p> <p>See Record Keeping Requirements.</p> <p>C. Sulfur Dioxide Emissions:</p> <p>See Record Keeping Requirements.</p> <p>D. NOx Emissions:</p> <p>See Record Keeping Requirements.</p> <p>E. CO and VOC Emissions:</p> <p>See Record Keeping Requirements.</p> <p>F. Operational Limitations:</p> <p>See Record Keeping Requirements.</p>

A permit shield shall cover the applicable requirements identified for the emissions units listed in the above table.

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8.0	<p><u>Emissions Unit Number(s): EU-17 and EU-18</u></p> <p>EU-17 and EU-18: Two (2) natural gas-fired space heaters (Temp-Heat Model THP-4500) each rated at 4.5 MMBtu/hr. for providing comfort heat in the boiler room.</p>
8.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. NOx Emissions (NOX RACT)</p> <ol style="list-style-type: none"> 1. COMAR 26.11.09.08F(1), which requires the Permittee or operator of a space heater as defined in regulation .01B of this chapter to: <ol style="list-style-type: none"> a. Submit to the Department a list of each affected installation on the premises and the type of fuel used in each installation; b. Develop an operating and maintenance plan to minimize NOx emissions based on the recommendations of equipment vendors and other information including the source’s operating and maintenance experience; c. Implement the operating and maintenance plans and maintain the plans at the premises for review upon request by the Department; d. Require installation operators to attend in-state operators training program once every three years on combustion optimization that are sponsored by the Department, U.S. EPA, or equipment vendors; and e. Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request. <p>Note: COMAR 26.11.09.08 states that “for the purpose of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.”</p> 2. COMAR 26.11.09.08F(2), which requires the Permittee or operator who owns or operates an installation that no longer qualifies as a space heater to inform the Department not later than 60 days after the date when the fuel burning equipment did not qualify and shall meet the applicable fuel burning equipment RACT requirement in this regulation. 3. COMAR 26.11.09.08K(3), which requires the Permittee to maintain annual fuel use records on site for at least five years and make records available to the Department upon request.

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	<p>B. Operational Requirement</p> <p>The Permittee shall only burn natural gas in the space heaters unless the Permittee applies for and receives an approval or permit from the Department to burn an alternate fuel. [Authority: COMAR 26.11.09.04]</p>
8.2	<p><u>Testing Requirements:</u></p> <p>A. NOx Emissions (NOX RACT)</p> <p>See Monitoring Requirements.</p> <p>B. Operational Requirement</p> <p>See Record Keeping Requirements.</p>
8.3	<p><u>Monitoring Requirements:</u></p> <p>A. NOx Emissions (NOX RACT)</p> <p>The Permittee shall develop and implement the operating and maintenance plan and maintain the plan at the premises for review upon request by the Department [Authority: COMAR 26.11.09.08F(1)(c)].</p> <p>B. Operational Requirement</p> <p>See Record Keeping Requirements.</p>
8.4	<p><u>Record Keeping Requirements:</u></p> <p>A. NOx Emissions (NOX RACT)</p> <ol style="list-style-type: none"> 1. The Permittee shall maintain the operating and maintenance plan at the premises for review by the Department upon request. [Authority: COMAR 26.11.09.08F(1)(c)] 2. The Permittee shall maintain records of the quantity of fuel burned each month and calculations of heat input so as to determine whether the units still qualify as a “Space Heater” [Authority: COMAR 26.11.03.06C].

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	<p>3. The Permittee shall maintain records of the training program attendance for each operator at the site [Authority: COMAR 26.11.09.08F(1)(e)].</p> <p>4. The Permittee shall maintain annual fuel use records on site for at least five years and make records available to the Department upon request. [Authority COMAR 26.11.09.08K(3)]</p> <p>B. Operational Requirement</p> <p>The Permittee shall maintain records of the type of fuel burned. [Authority: COMAR 26.11.02.19C(1)(c)].</p>
8.5	<p><u>Reporting Requirements:</u></p> <p>A. NOx Emissions (NOx RACT)</p> <p>1. The Permittee shall inform the Department no later than 60 days after the date when the units no longer qualify as a space heater and shall identify an alternative NOx RACT requirement under COMAR 26.11.09.08 with which the source will comply [Authority: COMAR 26.11.09.08F(2)].</p> <p>2. The Permittee shall submit a list of trained operators and training attendance records to the Department upon request. [Authority: COMAR 26.11.09.08F(1)(e)].</p> <p>B. Operational Requirement</p> <p>The Permittee shall submit records of fuel use as an attachment to the annual emissions certification. [Authority: COMAR 26.11.02.19C(2)].</p>

A permit shield shall cover the applicable requirements identified for the emissions units listed in the above table.

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9.0	<p><u>Emissions Unit Number(s): EU-19</u></p> <p>EU-19: One (1) automated coal blending system comprising of a 45-ton feed hopper and a 30-in drag-chain conveyor (Permit No. 011-0203-6-0304).</p>

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9.1

Applicable Standards/Limits :

A. Visible Emissions

1. **COMAR 26.11.06.02C(1)**, which limits the discharge of visible emissions from any installations, other than water in an uncombined form, which is greater than 20% opacity

Exception- COMAR 26.1106.2C(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:

- a. The visible emissions are not greater than 40 percent opacity; and
- b. The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period.

2. **40 CFR §60.254(b)(1)** – On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008 must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 10 percent opacity or greater.

Note: The monitoring, record keeping, and reporting strategy to demonstrate compliance with the NSPS opacity standard will be used for the compliance demonstration of the COMAR opacity standard.

3. **40 CFR §60.255(h)** – The Permittee, Owner or Operator of each affected coal truck dump operation that commenced construction, reconstruction, or modification after April 28, 2008, must meet the requirements specified in 40 CFR §60.255(h)(1) through (3).

B. Operating Requirements

The Permittee shall utilize water injection system or other necessary measures as frequently as necessary to prevent fugitive emissions and dust from becoming airborne in accordance with COMAR 26.11.06.03D.

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9.2	<p><u>Testing Requirements:</u></p> <p>A. Visible Emissions</p> <ol style="list-style-type: none"> 1. The Permittee shall conduct the performance tests required in §60.8 using the methods identified in §60.257 to demonstrate compliance with the applicable emissions standards in this subpart as specified in paragraph (b) (2) of §60.255 [Authority: 40 CFR §60.255(b)]. 2. As an alternative to meeting the requirements in paragraph (b)(2) of §60.255, the Permittee may elect to comply with the requirements in paragraph (f)(1) of §60.255 [Authority: 40 CFR §60.255(f)]. <p>B. Operating Requirements</p> <p>See monitoring requirements.</p>
9.3	<p><u>Monitoring Requirements:</u></p> <p>A. Visible Emissions</p> <ol style="list-style-type: none"> 1. The Permittee shall visually inspect the exhaust gases from each baghouse stack when coal is being handled or crushed for visible emissions once a month for 1 minute and shall record the results of each observation. If emissions in the exhaust gases are visible, the Permittee shall perform the following: <ol style="list-style-type: none"> a. Inspect all process and/or control equipment that may affect visible emissions; b. Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated; c. Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and d. If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions. [Authority: COMAR 26.11.03.06C]. 2. The Permittee shall conduct an initial performance test using Method 9 of Appendix A-4 of this part according to the requirements in paragraphs (h)(1)(i) and (ii). [Authority: 40 CFR §60.255(h)].

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	<p>a. The Permittee shall conduct opacity readings during the duration of three separate truck dump events. Each truck dump event commences when the truck bed begins to elevate and concludes when the truck bed returns to a horizontal position. [Authority: 40 CFR §60.255(h)(1)(i)].</p> <p>b. Compliance with the opacity limit is determined by averaging all 15-second opacity readings made during the duration of three separate truck dump events. [Authority: 40 CFR §60.255(h)(1)(ii)].</p> <p>3. The Permittee shall conduct monthly visual observations of all process and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible. [Authority: 40 CFR §60.255(h)(2)].</p> <p>4. The Permittee shall conduct a Performance test using Method 9 of Appendix A-4 of this part at least once every 5 calendar years for each affected facility [Authority: 40 CFR §60.255(h)(3)].</p> <p>B. Operating Requirements</p> <p>See record keeping requirements</p>
9.4	<p><u>Record Keeping Requirements:</u></p> <p>A. Visible Emissions</p> <p>1. The Permittee shall maintain in a logbook (written or electronic) on-site for at least 5 years and shall be made available to the Department upon request. The logbook shall record the following:</p> <p>a. The manufacturer’s recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer recommendation, if any, shall be noted.</p> <p>b. The date and time of required periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions. Results from these actions shall be noted.</p> <p>c. The amount and type of coal processed each calendar month. [Authority: 40 CFR §60.258(a)] and [Authority: COMAR 26.11.03.06C].</p>

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	<p>2. The Permittee shall maintain a record of the results of all visual emission observations and corrective actions taken to address exceedance including maintenance performed on each affected facility. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request [Authority: COMAR 26.11.03.06C and 40 CFR §60.258(a)(2)].</p> <p>B. Operating Requirements</p> <p>The Permittee shall maintain a log of the use of water injection system or other measures to prevent fugitive dust from becoming airborne on site for at least 5 years and shall be made available to the Department upon request [Authority: COMAR 26.11.03.06C].</p>
9.5	<p><u>Reporting Requirements:</u></p> <p>A. Visible Emissions</p> <p>1. The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations” [Authority: COMAR 26.11.03.06C].</p> <p>2. The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations.” [Authority: COMAR 26.11.03.06C40 CFR §60.258(a)(2)]</p> <p>B. Operating Requirements</p> <p>The Permittee shall submit a log of the use of water injection system or other measures to prevent fugitive dust from becoming airborne upon request by the Department [Authority: COMAR 26.11.03.06C].</p>

A permit shield shall cover the applicable requirements identified for the emissions units listed in the above table.

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Table IV – 10	
10.0	<p><u>Emissions Unit Number(s)</u></p> <p>Facility wide - Control of fugitive particulate emissions from storage piles, vehicular traffic at the site, and other sources including limestone unloading and handling operations, coal unloading and handling operations, and ash loading and handling operations.</p>
10.1	<p><u>Applicable Standards/Limits :</u></p> <p>A. Fugitive Particulate Emissions</p> <ol style="list-style-type: none"> 1. COMAR 26.11.06.03D – “Particulate Matter from Materials Handling and Construction. A person may not cause or permit any material to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.” 2. The Permittee shall assure that no more than 203 trucks/day, comprised of coal, limestone, and CO₂, shall be permitted on-site for delivery. [Reference: Permit to Construct No. 001-3-0127, 0136, & 0067A]
10.2	<p><u>Testing Requirements:</u></p> <p>A. Fugitive Particulate Emissions</p> <p>See Monitoring Requirements</p>
10.3	<p><u>Monitoring Requirements:</u></p> <p>A. Fugitive Particulate Emissions</p> <ol style="list-style-type: none"> 1. The Permittee shall implement the facility’s written plan that addresses the management program for controlling fugitive dust from storage piles, vehicular traffic at the site, and other sources. [Authority: COMAR 26.11.03.06C and PTC # 001-3-0127, 6-0136, & 0067 A – Condition C-4] 2. The Permittee shall monitor and count the number of trucks on the site for delivery each day. [Authority: COMAR 26.11.03.06C]

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Table IV – 10	
10.4	<p><u>Record Keeping Requirements:</u></p> <p>A. Fugitive Particulate Emissions</p> <ol style="list-style-type: none"> 1. The Permittee shall maintain on site a written plan that addresses the management program for controlling fugitive dust from storage piles, vehicular traffic at the site, and other unconfined sources. [Authority: PTC # 01-3-0127, 0136, & 0067 A – condition C-4.] 2. The Permittee shall maintain a record of the number of coal, limestone, and CO₂ trucks on site for delivery each day. [Authority: COMAR 26.11.03.06C]
10.5	<p><u>Reporting Requirements:</u></p> <p>A. Fugitive Particulate Emissions</p> <ol style="list-style-type: none"> 1. The Permittee shall submit the written plan that addresses the management program for controlling fugitive dust from storage piles, vehicular traffic at the site, and other unconfined sources upon request by the Department [Authority: COMAR 26.11.03.06C]. 2. The Permittee shall submit, upon request by the Department, a record of the number of coal, limestone, and CO₂ trucks on site for delivery each day. [Authority: COMAR 26.11.03.06C]

A permit shield shall cover the applicable requirements identified for the emissions units listed in the above table.

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SECTION V INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

- (1) Space heaters utilizing direct heat transfer and used solely for comfort heat;
- (2) Water cooling towers and water-cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;
- (3) Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;
- (4) Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;
- (5) Equipment for washing or drying products fabricated from metal or glass, provided that no VOC is used in the process and that no oil or solid fuel is burned;
- (6) Containers, reservoirs, or tanks used exclusively for:
 - (a) No. 4 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;
 - (b) No. 1 Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;
 - (c) No. 1 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;
- (7) Charbroilers and pit barbecues as defined in COMAR 26.11.18.01 with a total cooking area of 5 square feet (0.46 square meters) or less;
- (8) Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks display, and kerosene fuel use;

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- (9) Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;
- (10) Laboratory fume hoods and vents;

For the following, attach additional pages as necessary:

- (11) Any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):

No. 1 Amine (MEA or equivalent) Storage Tank

No. 1 Wastewater Storage Tank from CO₂ Production

No. 1 Hydrochloric Acid Tank

No. 1 Sulfuric Acid Storage Tank

- (12) Any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. 2 Anhydrous Ammonia Storage Tanks

No. 2 Sodium Hydroxide Storage Tanks

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SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

The Permittee is subject to the following State-only enforceable requirements:

1. Applicable Regulations:

COMAR 26.11.06.08 – Nuisance. “An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution.”

COMAR 26.11.06.09 - Odors. “A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created.”

Emissions Unit Number(s): E-1 Boiler Cont'd

E-1: One (1) Atmospheric Circulating Fluidized Bed Boiler (ACFB) with a designed rated capacity of 2070 MMBtu/hr. of heat input burning bituminous coal and No. 2 diesel fuel during start-up. **[3-0127]**

Applicable Standards/Limits:

COMAR 26.11.09.05. – Visible Emissions.

“A. Fuel Burning Equipment.

(4) Fuel Burning Equipment Required to Operate a COM. The owner or operator of fuel burning equipment that is subject to the requirement to install and operate a COM shall demonstrate compliance with the applicable visible emissions limitation specified in §A(1) and (2) of this regulation as follows:

(a) For units with a capacity factor greater than 25 percent, until December 31, 2009, compliance is achieved if visible emissions do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 4 percent of the unit's operating time in any calendar quarter, during which time visible emissions:

(i) Do not exceed 40.0 percent opacity, except for 5.0 hours or 0.5 percent of the unit's operating time, whichever is greater;

(ii) Do not exceed 70.0 percent opacity for more than four (4) 6-minute periods, except that coal-fired units equipped with electrostatic precipitators may exceed 70.0 percent opacity for no more than 2.2 hours; and

(iii) On any calendar day, do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 4.1 hours, during

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which time visible emissions do not exceed 40.0 percent opacity for more than 1.4 hours and do not exceed 70.0 percent opacity for more than two (2) six-minute periods;

(b) For units with a capacity factor greater than 25 percent, beginning January 1, 2010, compliance is achieved if visible emissions do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 2 percent of the unit's operating time in any calendar quarter, during which time visible emissions:

(i) Do not exceed 40.0 percent opacity, except for 5.0 hours or 0.5 percent of the unit's operating time, whichever is greater;

(ii) Do not exceed 70.0 percent opacity for more than four (4) six-minute periods, except that coal-fired units equipped with electrostatic precipitators may exceed 70.0 percent opacity for no more than 2.2 hours; and

(iii) On any calendar day, do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 4.1 hours, during which time visible emissions do not exceed 40.0 percent opacity for more than 1.4 hours and do not exceed 70.0 percent opacity for more than two 6-minute periods;

(c) For units with a capacity factor equal to or less than 25 percent that operate more than 300 hours per quarter, beginning July 1, 2009, compliance with the applicable visible emissions limitation in §A(1) and (2) of this regulation is achieved if, during a calendar quarter, visible emissions do not exceed the applicable standard for more than 20.0 hours, during which time visible emissions:

(i) Do not exceed 40.0 percent opacity for more than 2.2 hours;

(ii) Do not exceed 70 percent for more than four 6-minute periods; and

(iii) On any calendar day, do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 4.1 hours, during which time visible emissions do not exceed 40.0 percent opacity for more than 1.4 hours and do not exceed 70.0 percent opacity for more than two 6-minute periods; and

(d) For units with a capacity factor equal to or less than 25 percent that operate 300 hours or less per quarter, beginning July 1, 2009, compliance with the applicable visible emissions limitation in §A(1) and (2) of this regulation is achieved if, during a calendar quarter, visible emissions do not exceed the applicable standard for more than 12.0 hours, during which time visible emissions:

(i) Do not exceed 40.0 percent opacity for more than 2.2 hours;

(ii) Do not exceed 70.0 percent opacity for more than four 6-minute periods; and

(iii) On any calendar day, do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 4.1 hours, during which time visible emissions do not exceed 40.0 percent opacity for more than

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1.4 hours and do not exceed 70.0 percent opacity for more than two 6-minute periods.

(5) Notwithstanding the requirements in §A(4) of this regulation, the Department may determine compliance and noncompliance with the visible emissions limitations specified in §A(1) and (2) of this regulation by performing EPA reference Method 9 observations.

(6) In no instance shall excess emissions exempted under this regulation cause or contribute to a violation of any ambient air quality standard in 40 CFR Part 50, as amended, or any applicable requirements of 40 CFR Part 60, 61, or 63, as amended. “

B. Determining Violations.

(1) For each unit required to operate a COM pursuant to COMAR 26.11.01.10A(1)(a) and (b), each day during a calendar quarter when the opacity of emissions from that unit during the calendar quarter or calendar day, as applicable, exceeds the emission limitations in §A(4)(a), (b), (c) and (d) of this regulation shall constitute a separate day of violation.

(2) A violation of §A(4)(a)(i), (ii), or (iii), §A(4)(b)(i), (ii) or (iii), §A(4)(c)(i), (ii) or (iii), or §A(4)(d)(i), (ii) or (iii), of this regulation, as applicable, that occur on the same day shall constitute separate violations.

(3) A daily violation that occurs during the same calendar quarter as a quarterly violation is a separate violation. “

C. Fuel Burning Equipment Subject to Federal COM Requirements.

Except for owners or operators of fuel burning equipment subject to any federal requirement that mandates operation of a COM and as provided in §D of this regulation, the owner or operator of fuel burning equipment required to install and operate a COM may discontinue the operation of the COM on fuel burning equipment that is served by a flue gas desulfurization device:

(1) When emissions from the equipment do not bypass the flue gas desulfurization device serving the equipment;

(2) When the flue gas desulfurization device serving the equipment is in operation;

(3) If the owner or operator has demonstrated to the Department's satisfaction, in accordance with 40 CFR §75.14, as amended, and all other applicable State and federal requirements, that water vapor is present in the flue gas from the equipment and would impede the accuracy of opacity measurements; and

(4) If the owner or operator has fully implemented an alternative plan, approved by the Department, for monitoring opacity levels and particulate matter emissions from the stack that includes:

(a) A schedule for monthly observations of visible emissions from the stack by a person trained to perform Method 9 observations; and

(b) Installation and operation of a particulate matter CEM that complies with all applicable State and federal requirements for particulate matter CEMs. “

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“D. If, for units equipped with a flue gas desulfurization device, emissions bypass the device and are discharged through a bypass stack, the bypass stack shall be equipped with a COM approved by the Department.”

Emissions Unit Number(s): E-1 Boiler Cont'd

E-1: One (1) Atmospheric Circulating Fluidized Bed Boiler (ACFB) with a designed rated capacity of 2070 MMBtu/hr. of heat input burning bituminous coal and No. 2 diesel fuel during start-up. [3-0127]

Applicable Regulations:

Management of Coal Combustion Byproducts

COMAR 26.04.10.03B - General Restrictions and Specifically Prohibited Acts.

(3) Air Pollution

A person may not engage in the disposal, storage, transportation, processing, handling, or use of coal combustion byproducts without taking reasonable precautions to prevent particulate matter from becoming airborne. These reasonable precautions shall include, when appropriate as determined by the Department, those precautions described in COMAR 26.11.06.03C and D.

(4) Transportation.

In addition to the requirements of §B(3) of this regulation, a person may not transport coal combustion byproducts without taking reasonable precautions to control fugitive air emissions relating to the transportation. These reasonable precautions shall include, at a minimum, the following:

(a) Vehicles transporting coal combustion byproducts shall be fully enclosed, or fully enclosed on all sides and covered with a firmly secured canvas or other covering, so as to prevent any coal combustion byproducts from blowing off, falling off, or spilling out of the vehicle, or the coal combustion byproducts shall be handled and transported in sealed containers designed for transportation of powdery solids;

(b) Before leaving a site where coal combustion byproducts are loaded or off-loaded, vehicles transporting coal combustion byproducts shall be rendered clean and free of excess material or debris that could blow off, fall off, or spill during transportation;

(c) Coal combustion byproducts being loaded into or off-loaded from a vehicle shall be sufficiently moistened or otherwise conditioned or contained to prevent

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particulate coal combustion byproducts from becoming airborne or causing fugitive air emissions;

(d) Following loading but prior to any transportation of coal combustion byproducts, the transporter shall inspect each vehicle that contains coal combustion byproducts to ensure that the requirements of §B(4) of this regulation are met;

(e) A transporter of coal combustion byproducts shall maintain an inspection log for each vehicle that shall be maintained in the vehicle at all times during transport of coal combustion byproducts, and for 30 days thereafter that shall certify compliance with the standards in §B(4) of this regulation; and

(f) An inspection log maintained by a transporter of coal combustion byproducts shall consist of an entry for each inspection of a vehicle that has been conducted by the transporter. An inspection entry shall consist of the following information:

(i) The date the inspection occurred;

(ii) The time of day the inspection occurred;

(iii) The name of the person conducting the inspection;

(iv) The condition of the vehicle and any corrective action required to ensure compliance with this subsection, for example, "truck cleaned and covered" for a vehicle that meets the requirements, or "cover OK, right side wheels hosed off again" for a vehicle that was properly covered but which required re-cleaning of wheels on the right side; and

(v) The signature of the individual certifying compliance with §B(4) of this regulation.

2. Record Keeping and Reporting:

The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

(a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

(b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

Maryland Department of the Environment
Air and Radiation Administration

CO₂ BUDGET TRADING PROGRAM PERMIT

Plant Name: AES Warrior Run	
Affected Trading Units: Unit 1	
Owner: AES WR Limited Partnership	ORIS Code 10678
Effective Date: September 1, 2020 To: August 31, 2025	

Contents:

1. Statement of Basis
2. Table of Affected Units
3. Standard Requirements.
4. The permit application forms submitted for this source.

-
1. Statement of Basis

Statutory and Regulatory Authorities: In accordance with Environmental Article §2-401, Annotated Code of Maryland, the Maryland Department of the Environment, Air and Radiation Administration issues this permit pursuant to COMAR 26.09.01 thru COMAR 26.09.04.

Renewal Permit Approval

George S. Aburn, Jr., Director
Air and Radiation Administration

Date of Issue

AES WR Limited Partnership

**CO₂ Budget Trading Program Permit
Renewal**

2. Affected Units

Unit ID #	ARA ID #	Unit Description
Unit 1	3-0127	2070 MMBtu/hr. coal fired AFBC boiler

3. Standard Requirements:

A. Selection and Responsibilities of CO₂ Budget Source Compliance Account Authorized Account Representatives.

- (1) Each CO₂ budget source shall have a CO₂ authorized account representative and an alternate CO₂ authorized account representative. (COMAR 26.09.01.04B)
- (2) Upon receipt of a complete account certificate of representation:
 - (a) The CO₂ authorized account representative and alternate CO₂ authorized account representative shall represent and, by representations, actions, inactions, or submissions, legally bind each owner or operator of the CO₂ budget source represented and each CO₂ budget unit at the source in all matters pertaining to this subtitle, notwithstanding any agreement between the CO₂ authorized account representative, alternate CO₂ authorized account representative, and the owners or operators; and
 - (b) The owners or operators shall be bound by any decision or order issued to the CO₂ authorized account representative or alternate CO₂ authorized account representative by the Department or a court regarding the CO₂ budget source or unit. (COMAR 26.09.01.04E (1) & (2))
- (3) A CO₂ budget permit may not be issued, or a compliance account established for a CO₂ budget source until the Department has received a complete account certificate of representation for a CO₂ authorized account representative and alternate CO₂ authorized account representative of the source and the CO₂ budget units at the source. (COMAR 26.09.01.04F)
- (4) Each submission shall be signed and certified by the CO₂ authorized account representative or alternate CO₂ authorized account representative on behalf of each CO₂ budget source and shall include the following statement by the CO₂ authorized account representative or alternate CO₂ authorized account representative: "I am authorized to make the submission on behalf of the owners or operators of the CO₂ budget sources or CO₂ budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in the 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 or imprisonment."

(COMAR 26.09.01.04G)

B. Distribution Of CO₂ Allowances And Compliance

- (1) Unless otherwise specified in this chapter, a CO₂ budget source shall demonstrate compliance with its CO₂ budget emissions limitation by holding one CO₂ allowance in its compliance account for every ton of CO₂ that it emits in a control period, by the allowance transfer deadline for that control period. (COMAR 26.09.02.03I(1))
- (2) As of the CO₂ allowance transfer deadline for an interim control period, the owners and operators of each CO₂ budget source and each CO₂ budget unit at the source shall hold, in the source's compliance account for deduction under §I of this regulation, CO₂ allowances for no less than 50 percent of the total CO₂ emissions for the interim control period from all CO₂ budget units at the source. (COMAR 26.09.02.03I(2))
- (3) Allowances Available for Compliance Deduction. The following CO₂ allowances may be deducted from a compliance account for purposes of complying with a budget source's CO₂ budget emissions limitation for a control period or an interim control period:
 - (a) CO₂ allowances that are not CO₂ offset allowances and are identified as allowances falling within a prior control period, the same control period, or the same interim control period for which the allowances are deducted;
 - (b) CO₂ allowances that are held or transferred into the CO₂ budget source's compliance account as of the CO₂ allowance transfer deadline for that control period or for the interim control period contained within that control period;
 - (c) CO₂ offset allowances that are available to be deducted for compliance during a control period or an interim control period where the quantity of allowances is limited to:
 - (i) 3.3 percent of the CO₂ budget source's CO₂ emissions for that control period; or
 - (ii) 3.3 percent of the CO₂ budget source's CO₂ emissions for an interim control period multiplied by 0.50.(COMAR 26.09.02.03I(3)(a)-(c))
- (4) Deduction of CO₂ allowances:
 - (a) The Department shall deduct allowances from the CO₂ budget source's compliance account until:
 - (i) The number of CO₂ allowances deducted equals 50 percent of the total CO₂ emissions for an interim control period; or
 - (ii) The number of CO₂ allowances deducted equals the total CO₂ emissions for the control period.

- (b) No deduction shall be made for CO₂ emissions attributable to the burning of eligible biomass. (COMAR 26.09.02.03I(4)(a) & (b))
- (5) The identification of available CO₂ allowances for compliance deduction by serial number or by default is as follows:
- (a) The CO₂ authorized account representative for a source's compliance account may request that specific CO₂ allowances, identified by serial number for a control period or interim control period, be deducted; and
- (b) In the absence of an identification or in the case of a partial identification of available CO₂ allowances by serial number, the Department shall deduct CO₂ allowances for a control period or interim control period in the following descending order:
- (i) For the first control period, all CO₂ allowances purchased by direct sale from the Department during years 2009, 2010, and 2011 resulting from the occurrence of the \$7 auction clearing price;
- (ii) All CO₂ allowances for a control period allocated to a CO₂ budget unit from the Long-Term Contract Set-aside Account or the Clean Generation Set-aside Account;
- (iii) Subject to the relevant compliance deduction limitations identified in §I(3)(c) of this regulation, any CO₂ offset allowances transferred and recorded in the compliance account, in chronological order; and
- (iv) Any CO₂ allowances, other than those identified in §I(5)(b)(i)—(iii) of this regulation, that are available for deduction in the order they were recorded. (COMAR 26.09.02.03I(5)(a)-(b))
- (6) Deductions for Excess Emissions.
- (a) If a CO₂ budget source has excess emissions, the Department shall deduct, from the CO₂ budget source's compliance account, CO₂ allowances from allocation years that occur after the control period or interim control period in which the excess emissions or excess interim emissions occurred, equal to three times the excess emissions.
- (b) If a source's compliance account holds insufficient CO₂ allowances to cover the excess emissions, the source shall immediately transfer sufficient allowances into its compliance account.
- (c) CO₂ offset allowances may not be deducted to account for the source's excess emissions.
- (d) No CO₂ allowance deduction shall relieve the owners or operators of the CO₂ budget units at the

source of liability for any fine, penalty, assessment or obligation to comply with any other remedy, for the same violation, as ordered under applicable State law.
(COMAR 26.09.02.03I(6)(a)-(d))

(7) Guidelines.

(a) The following guidelines apply in assessing fines, penalties, or other obligations:

(i) For purposes of determining the number of days of violation, if a CO₂ budget unit has excess emissions for a control period or interim control period, each day in the control period or interim control period, as applicable, constitutes a separate day of violation unless the owners or operators of the unit can demonstrate to the satisfaction of the Department that a lesser number of days should be considered; and

(ii) The Department shall consider the amount of excess emissions in determining the severity of the violation.

(b) Each ton of excess interim emissions is a separate violation.
(COMAR 26.09.02.03I(7)(a)-(b))

(8) If the CO₂ budget source's compliance account no longer exists, the CO₂ allowances shall be deposited in a general account selected by the owner or operator of the CO₂ budget source.
(COMAR 26.09.02.03I(8))

(9) Adjustments and Errors.

(a) The Department may review and conduct independent audits concerning any submission under this subtitle and make appropriate adjustments to the information, if necessary.

(b) The Department may correct any error in any account and, within 10 business days of making any correction, notify the CO₂ authorized account representative for the account.
(COMAR 26.09.02.03I(9)(a)-(b))

C. Applicability and Administration

(1) The requirements of this permit apply to the owner or operator of a CO₂ budget unit. When this permit establishes a requirement such as the submittal of a permit application, a report, a request for allowances or transfer of allowances, or general information, these actions shall be achieved through the authorized account representative on behalf of the owner or operator of the affected CO₂ budget source or unit.
(COMAR 26.09.02.02A)

(2) The requirements of this subtitle are effective on January 1, 2009 or, for new CO₂ budget units, on the day on which the unit commences operation.
(COMAR 26.09.02.02C).

- (3) The provisions of this permit do not exempt or otherwise relieve the owners or operators of a CO₂ budget source from achieving compliance with any other provision of applicable State and federal laws and regulations.
(COMAR 26.09.02.02D).
- (4) Unless otherwise stated under this subtitle, any time period scheduled to begin:
 - (a) On the occurrence of an act or event, begins on the day the act or event occurs; and
 - (b) Before the occurrence of an act or event, is computed so that the period ends the day before the act or event occurs.
(COMAR 26.09.02.02E)
- (5) Unless otherwise stated, if the final day of any time period for performing an act required by this subtitle falls on a weekend or on a State or federal holiday, the time period is extended until or to the next business day.
(COMAR 26.09.02.02F)

D. Permit Requirements

- (1) The account representative or designate alternate account representative) of each affected unit at a source, (every fossil fuel fired unit with a nameplate capacity of 25 MW or greater) for that source shall comply with the following:
 - (a) The CO₂ authorized account representative for the source shall submit an initial CO₂ budget permit application by October 1, 2008, or 12 months before the date on which the CO₂ budget source, or a new unit at the source, commences operation.
(COMAR 26.09.02.04A(2));
 - (b) The CO₂ budget permit application shall include the following in a format prescribed by the Department: 1) the identification of the CO₂ budget source; 2) plant name and the ORIS (Office of Regulatory Information Systems) or facility code assigned to the source by the Energy Information Administration of the U. S. Department of Energy, if applicable; 3) each CO₂ budget unit at the source; and 4) other information required by the Department.
(COMAR 26.09.02.04A(3))
 - (c) A CO₂ authorized account representative for the source shall submit a complete application for the renewal of an existing CO₂ budget permit on forms provided by the Department not later than 90 days before the expiration of the current CO₂ budget permit and in accordance with this regulation.
(COMAR 26.09.02.04E)
- (2) Each CO₂ budget source shall apply for and have in effect a CO₂ budget permit that contains all applicable requirements.

(COMAR 26.09.02.04A(1)).

- (3) The CO₂ budget permit issued by the Department shall be separate but attached to the budget source's Part 70 permit.
(COMAR 26.09.02.04B)
- (4) A CO₂ budget permit expires 5 years from the date of issuance by the Department, unless an earlier expiration date is specified in the permit.
(COMAR 26.09.02.04D)

E. Monitoring, Initial Certification and Recertification Requirements

- (1) For each control period in which a CO₂ budget source is subject to the CO₂ budget emissions limitation, the CO₂ authorized account representative of the source shall submit a compliance certification report by the March 1 following the relevant control period. A compliance certification report is not required as part of the compliance obligation during an interim control period.
(COMAR 26.09.02.05A(1))
- (2) The CO₂ authorized account representative shall include in the compliance certification report the following:
 - (a) Identification of the source and each CO₂ budget unit at the source;
 - (b) At the CO₂ authorized account representative's option, the serial numbers of the CO₂ allowances that are to be deducted from the source's compliance account for the control period, including the serial numbers of any CO₂ offset allowances that are to be deducted subject to applicable limitations; and
 - (c) The compliance certification required by §A(3) of COMAR 26.09.02.05.
(COMAR 26.09.02.05A(2))
- (3) In the compliance certification report, the CO₂ authorized account representative shall certify whether the source and each CO₂ budget unit at the source for which the compliance certification is submitted was operated during the control period in compliance with the requirements of this subtitle, including:
 - (a) Whether each CO₂ budget unit at the source was operated in compliance with the CO₂ budget emissions limitation;
 - (b) Whether the monitoring plan applicable to each unit at the source: (i) has been maintained to reflect the actual operation and monitoring of the unit; and (ii) contains all information necessary to track CO₂ emissions from the unit;
 - (c) Whether all CO₂ emissions from each unit at the source were monitored or accounted for

through the missing data procedures and reported in the quarterly monitoring reports, including:
(i) whether all conditional data was reported in the quarterly reports; or (ii) if conditional data were reported, whether the status of all conditional data has been resolved and all necessary quarterly report resubmissions have been made;

- (d) Whether the basis for certification or for using an excepted monitoring method or approved alternative monitoring method has changed; and
- (e) If a change is required to be reported, include: (i) the nature and reasons for the change; (ii) when the change occurred; and (iii) how the unit's compliance status was determined after the change, including the method used to determine emissions when a change mandated the need for monitor recertification.
(COMAR 26.09.02.05A (3) (a)-(e))
- (4) The Department, at its discretion, may review and conduct independent audits of any compliance certification or other submission required by this permit.
(COMAR 26.09.02.05B(1))
- (5) The Department may deduct CO₂ allowances from, or transfer CO₂ allowances to, a compliance account to correct errors in the account or to accurately reflect CO₂ emissions, based on the information in the compliance certification or other submissions.
(COMAR 26.09.02.05B(2))
- (6) The owner or operator of a CO₂ budget unit shall:
- (a) Install monitoring systems to monitor CO₂ concentration, stack gas flow rate, oxygen concentration, heat input, and fuel flow rate;
- (b) Install all monitoring systems in accordance with 40 CFR Part 75, except for equation G-1 in Appendix G (see below); and

$$W_{CO_2} = \frac{(MW_C + MW_{O_2}) \times W_C}{2,000 MW_C} \text{ (Eq. G-1)}$$

Where:

W_{CO₂}=CO₂ emitted from combustion, tons/day.

MW_C=Molecular weight of carbon (12.0).

MW_{O₂}=Molecular weight of oxygen (32.0)

W_C= Carbon burned, lb./day, determined using fuel sampling and analysis and fuel feed rates.

(COMAR 26.09.02.10A(1)(a)-(c))

- (7) Install and certify the monitoring system on or before the following dates:

- (a) For a CO₂ budget unit that commences commercial operation before July 1, 2008, the owner or operator shall comply on or before January 1, 2009; and
 - (b) For a CO₂ budget unit that commences commercial operation or constructs a new stack or flue on or after July 1, 2008, the owner or operator shall comply by January 1, 2009, or 90 operating days after the date on which the unit commences commercial operation.
(COMAR 26.09.02.10A(1)(d))
- (8) The owner or operator of a CO₂ budget unit that does not meet the applicable compliance date shall, in accordance with the provisions in 40 CFR §75.31(b)(2) or (c)(3), or §2.4 of Appendix D, determine, record, and report maximum potential or, as appropriate, minimum potential for the following:
- (a) CO₂ concentration;
 - (b) CO₂ emissions rate;
 - (c) Stack gas moisture content;
 - (d) Fuel flow rate; and
 - (e) Any other parameter required to determine CO₂ mass emissions.
(COMAR 26.09.02.10A(2)(a)-(e))
- (9) The owner or operator of a CO₂ budget unit that does not meet the applicable compliance date for any monitoring system shall determine, record, and report substitute data using the applicable missing data procedures in 40 CFR Part 75 Subpart D, or Appendix D, instead of the maximum potential values or, as appropriate, minimum potential values for a parameter, if the owner or operator demonstrates that there is continuity between the data streams for that parameter before and after the construction or installation.
(COMAR 26.09.02.10A(3))
- (10) An owner or operator of a CO₂ budget unit or a non-CO₂ budget unit monitored under 40 CFR §75.72 (b) (2) (ii) may not:
- (a) Use any alternative monitoring system, alternative reference method, or any other alternative for the required continuous emissions monitoring system without having obtained prior written approval from the Department;
 - (b) Operate the unit so as to discharge, or allow to be discharged, CO₂ emissions to the atmosphere without accounting for all emissions in accordance with the applicable provisions of this chapter and 40 CFR Part 75;
 - (c) Disrupt the operation of the CEMS, any portion of the CEMS, or any other approved emissions

monitoring method, and thereby avoid monitoring and recording CO₂ mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed; or

- (d) Permanently discontinue use of the approved CEMS unless the owner or operator monitors emissions with a system approved in accordance with this chapter and 40 CFR Part 75.
(COMAR 26.09.02.10A(4)(a)-(d))
- (11) For purposes of this subtitle only, the owner or operator of a CO₂ budget unit is exempt from demonstrating compliance with the initial certification requirements of 40 CFR §75.20 for a monitoring system if the following conditions are met:
 - (a) The monitoring system has been previously certified in accordance with 40 CFR §75.20; and
 - (b) The applicable quality assurance and quality-control requirements of 40 CFR §75.21 and Appendix B and Appendix D of 40 CFR Part 75 are fully met for the certified monitoring system.
(COMAR 26.09.02.10B(1)(a)-(b))
- (12) The recertification provisions of this regulation apply to a monitoring system exempt from the initial certification requirements of this regulation.
(COMAR 26.09.02.10B(2))
- (13) If the Department has previously approved a petition under 40 CFR §75.72(b)(2)(ii) or 40 CFR §75.16(b)(2)(ii)(B) pursuant to 40 CFR §75.13 for apportioning the CO₂ emissions rate measured in a common stack or a petition under 40 CFR §75.66 for an alternative requirement in 40 CFR Part 75, the CO₂ authorized account representative shall resubmit the petition to the Department to determine whether the approval applies under this chapter.
(COMAR 26.09.02.10B(3))
- (14) The owner or operator of a CO₂ budget unit shall comply with the initial certification and recertification procedures for a CEMS and an excepted monitoring system under 40 CFR Part 75, Appendix D.
(COMAR 26.09.02.10B(4))
- (15) The owner or operator of a unit that qualifies to use the low mass emissions excepted monitoring methodology in 40 CFR §75.19 or that qualifies to use an alternative monitoring system under 40 CFR Part 75, Subpart E, shall comply with this regulation.
(COMAR 26.09.02.10 B(5))
- (16) When the owner or operator replaces, modifies, or changes a CEMS that the Department determines significantly affects the ability of the system to accurately measure or record CO₂ mass emissions or to meet the quality assurance and quality control requirements of 40 CFR §75.21 or Appendix B, the owner or operator shall recertify the monitoring system according to 40 CFR

§75.20(b).
(COMAR 26.09.02.10C(1))

(17) When the owner or operator replaces, modifies, or changes the flue gas handling system or the unit's operation in a manner that the Department determines has significantly changed the flow or concentration profile, the owner or operator shall recertify the CEMS according to 40 CFR §75.20(b).
(COMAR 26.09.02.10C(2))

(18) Approval Process for Initial Certifications and Recertification. The procedures in 40 CFR §75.20(b)(5) and (g)(7) apply for recertification. The CO₂ authorized account representative shall submit to the Department:

(a) A written notice of the dates of certification; and

(b) A recertification application for each monitoring system, including the information specified in 40 CFR §75.63.
(COMAR 26.09.02.10C(3)(a)-(b))

(19) Provisional certification data for a monitor shall be:

(a) Determined in accordance with 40 CFR §75.20(a)(3);

(b) A provisionally certified monitor may be used for a period not to exceed 120 days after receipt of the complete certification application for the monitoring system or component; and

(c) Data measured and recorded by the provisionally certified monitoring system or component is considered valid quality assured data, retroactive to the date and time of provisional certification, if the Department does not issue a notice of disapproval within 120 days of receipt of the complete certification application.
(COMAR 26.09.02.10C(4)(a)-(c))

(20) The Department shall issue a written notice of approval or disapproval of the certification application to the owner or operator within 120 days of receipt of the complete certification application.
(COMAR 26.09.02.10D(1))

(21) If the Department does not issue the notice within the 120-day period, each monitoring system that meets the applicable performance requirements of 40 CFR Part 75 and is included in the certification application shall be deemed certified for use.
(COMAR 26.09.02.10D(2))

(22) If the certification application is complete and shows that each monitoring system meets the applicable performance requirements of 40 CFR Part 75, the Department shall issue a written notice

of approval of the certification application within 120 days of receipt.
(COMAR 26.09.02.10D(3))

- (23) If the certification application is not complete, the Department shall issue a written notice of incompleteness that sets a reasonable date by which the CO₂ authorized account representative is to submit the additional information required to complete the certification application.
(COMAR 26.09.02.10D(4))
- (24) If the CO₂ authorized account representative does not comply with the notice of incompleteness by the specified date, the Department may issue a notice of disapproval.
(COMAR 26.09.02.10D(5))
- (25) If the Department issues a notice of disapproval of a certification application or a notice of disapproval of certification status, the owner or operator shall substitute the following values for each disapproved monitoring system, for each hour of unit operation during the period of invalid data beginning with the date and hour of provisional certification and continuing until the time, date, and hour specified under 40 CFR §75.20(a)(5)(i) or 75.20(g)(7):
- (a) For units using or intending to monitor for CO₂ mass emissions using heat input or for units using the low mass emissions excepted methodology under 40 CFR §75.19, the maximum potential hourly heat input of the unit; or
 - (b) For units intending to monitor for CO₂ mass emissions using a CO₂ pollutant concentration monitor and a flow monitor, the maximum potential concentration of CO₂ and the maximum potential flow rate of the unit under 40 CFR Part 75, Appendix A, §2.1.
(COMAR 26.09.02.10 D(6)(a)-(b))
- (26) The CO₂ authorized account representative shall submit a notification of certification retest dates and a new certification application. The owner or operator shall repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Department's notice of disapproval, not later than 30 operating days after the date of issuance of the notice of disapproval.
(COMAR 26.09.02.10D(7))
- (27) The owner or operator of a unit qualified to use the low mass emissions excepted methodology under 40 CFR §75.19 shall meet the applicable certification and recertification requirements of 40 CFR §§75.19(a) (2) and 75.20(h).
(COMAR 26.09.02.10E(1))
- (28) If the owner or operator of this unit elects to certify a fuel flow meter system for heat input determinations, the owner or operator shall also meet the certification and recertification requirements in 40 CFR §75.20(g).
(COMAR 26.09.02.10E(2))
- (29) Certification and Recertification Procedures for Alternative Monitoring Systems. For each unit for

which the owner or operator intends to use an alternative monitoring system approved by the Department, 40 CFR Part 75, Subpart E, shall be used to comply with the applicable notification and application procedures of 40 CFR §75.20(f).
(COMAR 26.09.02.10F)

(30) When any monitoring system fails to meet the quality assurance and quality control requirements or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable procedures in 40 CFR Part 75, Subpart D, Appendix D.
(COMAR 26.09.02.10G(1))

(31) Audit Decertification.

(a) Whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or the applicable provisions of 40 CFR Part 75, both at the time of the initial certification or recertification application submission and at the time of the audit, the Department shall issue a notice of disapproval of the certification status of the monitoring system.

(b) By issuing the notice of disapproval, the certification status of the monitoring system is prospectively revoked.
(COMAR 26.09.02.10G(2))

(32) The data measured and recorded by the monitoring system may not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status.
(COMAR 26.09.02.10G(3))

F. Record Keeping and Reporting Requirements

(1) The CO₂ authorized account representative shall comply with all record-keeping and reporting requirements in COMAR 26.09.02.10 and the applicable record-keeping and reporting requirements under 40 CFR §75.73.
(COMAR 26.09.02.11A)

(2) The CO₂ authorized account representative shall submit quarterly reports as described below in this section.
(COMAR 26.09.02.11B(1))

(3) The report shall contain the CO₂ mass emissions data for the CO₂ budget unit in an electronic format, unless otherwise required by the Department, for each calendar quarter beginning with:

(a) The calendar quarter covering January 1, 2009 — March 31, 2009, for a unit that commences commercial operation before July 1, 2008; or

- (b) For a unit commencing commercial operation on or after July 1, 2008, the calendar quarter corresponding to the earlier of the: (i) date of provisional certification; or (ii) applicable deadline for initial certification.
(COMAR 26.09.02.11B(2)(a)-(b))
- (c) If the quarter is the third or fourth quarter of 2008, reporting shall commence in the quarter covering January 1, 2009 through March 31, 2009.
(COMAR 26.09.02.11B(3))
- (4) The CO₂ authorized account representative shall submit each quarterly report within 30 days following the end of the calendar quarter covered by the report and in accordance with 40 CFR Part 75, Subpart H, §75.64 and 40 CFR Part 75, Subpart G except for the opacity, NO_x and SO₂ provisions.
(COMAR 26.09.02.11B(4))
- (5) The CO₂ authorized account representative shall submit a compliance certification in support of each quarterly report. The certification shall state that:
- (a) The monitoring data submitted were recorded in accordance with the applicable requirements of this chapter and 40 CFR Part 75, including the quality assurance procedures and specifications;
- (b) For a unit with add-on CO₂ emissions controls and for all hours where data are substituted in accordance with 40 CFR §75.34(a)(1), the add-on emissions controls were operating within the range of parameters listed in the quality assurance and quality control program under 40 CFR Part 75, Appendix B, and the substitute values do not systematically underestimate CO₂ emissions; and
- (c) The CO₂ concentration values substituted for missing data under 40 CFR Part 75, Subpart D, do not systematically underestimate CO₂ emissions.
(COMAR 26.09.02.11B(5)(a)-(c))
- (6) The CO₂ authorized account representative of a CO₂ budget unit may submit a petition to the Department under 40 CFR §75.66 requesting approval to apply an alternative to any requirement of this chapter.
(COMAR 26.09.02.11C)
- (7) The CO₂ authorized account representative or alternate CO₂ authorized account representative of a CO₂ budget unit that burns eligible biomass as a compliance mechanism under this chapter shall report the following information for each calendar quarter:
- (a) For each shipment of solid eligible biomass fuel fired at the CO₂ budget unit:
- (i) Total eligible biomass fuel input, on an as-fired basis, in pounds; and

- (ii) The moisture content, on an as-fired basis, as a fraction of weight;
- (b) For each distinct type of gaseous eligible biomass fuel fired at the CO₂ budget unit:
 - (i) The density of the biogas, on an as-fired basis, in pounds per standard cubic foot; and
 - (ii) The moisture content of the biogas, as a fraction by total weight;
- (c) For each distinct type of eligible biomass fuel fired at the CO₂ budget unit:
 - (i) The dry basis carbon content of the fuel type, as a fraction by dry weight;
 - (ii) The dry basis higher heating value, in MMBtu per dry pound;
 - (iii) The total dry basis eligible biomass fuel input, in pounds;
 - (iv) The total eligible biomass fuel heat input; and
 - (v) Chemical analysis, including heat value and carbon content;
- (d) The total amount of CO₂ emitted from the CO₂ budget unit due to firing eligible biomass fuel, in tons, calculated as in §D(2)(b) of this regulation;
- (e) The total heat input to the CO₂ budget unit due to firing eligible biomass fuel, in MMBtu, calculated below; and
- (f) Description and documentation of monitoring technology and fuel sampling methodology employed, including sampling frequency.
(COMAR 26.09.02.11 D(1)(a)-(f))
- (8) An owner or operator of a CO₂ budget unit shall calculate and submit on a quarterly basis the total dry weight for each distinct type of eligible biomass fired by the CO₂ budget unit during the reporting quarter:

- (a) For solid eligible biomass fuel, determined as follows:

$$F_j = \sum_{i=1}^m (1 - M_i) x F_i$$

where:

- (i) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j;
- (ii) F_i = Eligible biomass as fired fuel input (pounds) for fired shipment i;
- (iii) M_i = Moisture content (fraction) for fired shipment i;
- (iv) i = fired fuel shipment;
- (v) j = fuel type; and

(vi) m = number of shipments.

(b) For gaseous eligible biomass fuel, as determined as follows:

$$F_j = D_j \times V_j \times (1 - M_j)$$

where:

(i) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j;

(ii) D_j = Density of biogas (pounds/scf) for fuel type j;

(iii) V_j = Total volume (scf) for fuel type j;

(iv) M_j = Moisture content (fraction) for fuel type j; and

(v) j = fuel type

(COMAR 26.09.02.11D(2)(a)-(b))

(9) The amount of CO₂ emissions that is produced from the firing of eligible biomass for any full calendar quarter, during which either no fuel other than eligible biomass is combusted or during which fuels other than eligible biomass are combusted, is determined as follows:

$$CO_2 \text{ tons} = \sum_{j=1}^n F_j \times C_j \times O_j \left(\frac{44 \left(\frac{g}{mol CO_2} \right)}{12 \left(\frac{g}{mol C} \right)} \right) (0.0005)$$

where:

(a) CO₂ tons = CO₂ emissions due to firing of eligible biomass for the reporting quarter;

(b) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j, as calculated in §D(2)(a) of this regulation;

(c) C_j = Carbon fraction (dry basis) for fuel type j;

(d) O_j = Oxidation factor for eligible biomass fuel type j, derived for solid fuels based on the ash content of the eligible biomass fired and the carbon content of this ash or for gaseous eligible biomass fuels, a default oxidation factor of 0.995 may be used;

$$(e) \frac{44 \left(\frac{g}{mol CO_2} \right)}{12 \left(\frac{g}{mol C} \right)}$$

= The number of tons of carbon dioxide that are created when one ton of carbon is combusted;

(f) 0.0005 = The number of short tons which is equal to one pound;

(g) j = Fuel type; and

(h) n = number of distinct fuel types.
(COMAR 26.09.02.11D(3))

(10) Heat input due to firing of eligible biomass for each quarter shall be determined as follows:

(a) For each distinct fuel type:

$$H_j = F_j \times HHV_j$$

where:

- (i) H_j = Heat input (MMBtu) for fuel type j;
- (ii) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j;
- (iii) HHV_j = Higher heating value (MMBtu/pound), dry basis, for fuel type j, as determined through chemical analysis;
- (iv) j = Fuel type.

(b) For all fuel types:

$$HeatInputMMBtu = \sum_{j=1}^n H_j$$

where:

- (i) H_j = Heat input (MMBtu) for fuel type j;
- (ii) j = fuel type; and
- (iii) n = number of distinct fuel types.

Fuel sampling methods and fuel sampling technology shall be consistent with the New York State Renewable Portfolio Standard Biomass Guidebook, September 2011.
(COMAR 26.09.02.11D(4) & D(5))

(11) A CO₂ budget unit shall submit to the Department the megawatt-hour value and a statement certifying that the megawatt-hour of electrical output reported reflects the total actual electrical output for all CO₂ budget units at the facility used by the independent system operator (ISO) to determine settlement resources of energy market participants.
(COMAR 26.09.02.11E(1))

(12) A CO₂ budget unit shall report gross hourly megawatts to the Department in the same electronic data report (EDR) for gross output as submitted to the EPA Administrator, for the operating time in the hour, added for all hours in a year.
(COMAR 26.09.02.11E(2))

(13) A CO₂ budget unit shall submit the net electrical output to the Department in accordance with this regulation. A CO₂ budget source whose electrical output is not used in the independent system operator (ISO) energy market settlement determinations shall propose a method for quantification of net electrical output.

(COMAR 26.09.02.11E(3))

(14) Report of net Steam Output.

- (a) CO₂ budget sources selling steam shall use billing meters to determine net steam output or an alternative method to measure net steam output approved by the Department.
- (b) If data for steam output is not available, the CO₂ budget source may report heat input, substituting useful steam output for steam output.
(COMAR 26.09.02.11E(4)(a)-(b))

(15) Each CO₂ budget source shall submit an output monitoring plan with a description and diagram that include the following:

- (a) If the CO₂ budget unit monitors net electric output, the diagram shall contain all CO₂ budget units and all generators served by each CO₂ budget unit and the relationship between CO₂ budget units and generators;
- (b) If a generator served by a CO₂ budget unit is also served by a nonaffected unit, the nonaffected unit and its relationship to each generator shall be indicated on the diagram;
- (c) The diagram shall indicate where the net electric output is measured and include all electrical inputs and outputs to and from the plant;
- (d) If net electric output is determined using a billing meter, the diagram shall show each billing meter used to determine net sales of electricity and show that all electricity measured at the point of sale is generated by the CO₂ budget units;
- (e) If the CO₂ budget unit monitors net thermal output, the diagram shall indicate all steam or hot water coming into the net steam system, including steam from CO₂ budget units and nonaffected units, and all exit points of steam or hot water from the net steam system;
- (f) Each input and output stream shall have an estimated temperature, pressure and phase indicator, and an enthalpy in Btu per pound;
- (g) The diagram of the net steam system shall identify all useful loads, house loads, parasitic loads, any other steam loads, and all boiler feedwater returns;
- (h) The diagram shall represent all energy losses in the system as either usable or unusable losses;
- (i) The diagram shall indicate all flow meters, temperature or pressure sensors, or other equipment used to calculate gross thermal output; and
- (j) If a sales agreement is used to determine net thermal output, the diagram shall show the

monitoring equipment used to determine the sales of steam.
(COMAR 26.09.02.11F(2)(a)-(j))

- (16) The description of the output monitoring system shall include:
- (a) A written description of the output system and the equations used to calculate output, and, for net thermal output systems, descriptions and justifications of each useful load;
 - (b) A detailed description of all quality assurance and quality control activities that will be performed to maintain the output system; and
 - (c) Documentation supporting any output value to be used as a missing data value if there are periods of invalid output data.
 - (d) The missing data output value shall be either zero or an output value that is likely to be lower than a measured value and approved as part of the required monitoring plan.
(COMAR 26.09.02.11F(3)(a)-(b))
- (17) A certification statement shall be submitted by the CO₂ authorized account representative stating that either:
- (a) The output monitoring system consists entirely of billing meters; or
 - (b) The output monitoring system meets one of the accuracy requirements for nonbilling meters.
(COMAR 26.09.02.11G(1)(a)-(b))
- (18) The billing meter shall record the electric or thermal output. Any electric or thermal output values reported shall be the same as the values used in billing for the output.
(COMAR 26.09.02.11G(2))
- (19) For nonbilling meters, either the output monitoring system shall meet an accuracy of within 10 percent of the reference value, or each component monitor for the output system shall meet an accuracy of within 3 percent of the full-scale value, whichever is less stringent.
(COMAR 26.09.02.11G(3))
- (20) The system approach to accuracy shall include:
- (a) A determination of how the system accuracy of 10 percent is achieved using the individual components in the system; and
 - (b) Data loggers and any wattmeters used to calculate the final net electric output data or any flowmeters for steam or condensate, temperature measurement devices, absolute pressure measurement devices, and differential pressure devices used for measuring thermal energy.
(COMAR 26.09.02.11G(4) (a)-(b))

- (21) If, upon testing a piece of output measurement equipment, it is determined that the output readings are not accurate to within 3 percent of the full-scale value, then the equipment shall be repaired or replaced to meet that requirement.
(COMAR 26.09.02.11G(5))
- (22) Data is invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test.
(COMAR 26.09.02.11G(6))
- (23) Ongoing quality assurance and quality control activities shall be performed in order to maintain the output system.
(COMAR 26.09.02.11H(1))
- (24) If billing meters are used to determine output, quality assurance and quality control activities are not required beyond what are already performed.
(COMAR 26.09.02.11H(2))
- (25) Certain types of equipment such as potential transformers, current transformers, nozzle and venture type meters, and the primary element of an orifice plate only require an initial certification of calibration and do not require periodic recalibration unless the equipment is physically changed.
- (a) Pressure and temperature transmitters accompanying an orifice plate will require periodic retesting.
 - (b) For other types of equipment, the meter accuracy shall be recalibrated or verified at least once every 2 years, unless a consensus standard allows for less frequent calibrations or accuracy tests.
 - (c) For nonbilling meters, either the output monitoring system shall meet an accuracy of within 10 percent of the reference value, or each component monitor for the output system shall meet an accuracy of within 3 percent of the full-scale value, whichever is less stringent.
 - (d) If, upon testing a piece of output measurement equipment, it is determined that the output readings are not accurate to within 3 percent of the full-scale value, then the equipment shall be repaired or replaced to meet that requirement.
(COMAR 26.09.02.11 H(3)(a)-(e))
- (26) Out-of-Control Periods.
- (a) If, upon testing a piece of output measurement equipment, it is determined that the output readings are not accurate to the certification value, data is invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test.

(b) All invalid data shall be replaced by either zero or an output value that is likely to be lower than a measured value and that is approved as part of the required monitoring plan.
(COMAR 26.09.02.11 H(4)(a)-(b))

(27) The CO₂ authorized account representative shall submit annual output reports, as follows:

(a) Data shall be sent both electronically and in hardcopy by March 1 for the immediately preceding calendar year; and
(COMAR 26.09.02.11I 1))

(28) The annual report shall include unit level megawatt hours, all useful steam output, and a certification statement from the CO₂ authorized account representative stating the following, "I am authorized to make this submission on behalf of the owners and operators of the CO₂ budget sources or CO₂ budget units for which the submission is made. 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 or imprisonment."
(COMAR 26.09.02.11I(2))

G. CO₂ Emission Offset Projects

(1) In order to qualify for the award of CO₂ offset allowances, the following offset projects shall satisfy all applicable requirements identified in COMAR 26.09.03 and initially commence on or after December 20, 2005:

(a) Landfill methane capture and destruction;

(b) Reduction in emissions of sulfur hexafluoride (SF₆);

(c) Sequestration of carbon due to afforestation;

(d) Reduction or avoidance of CO₂ emissions from natural gas, oil, or propane end-use combustion due to end-use energy efficiency; and

(e) Avoided methane emissions from agricultural manure management operations.
(COMAR 26.09.03.02A(1)-(5))

4. Permit Application (See Attachment)



11600 Mexico Farms Road, SE • Cumberland, MD 21502 • (301) 777-0055 • FAX (301) 777-8772

August 28, 2019

Ms. Shannon Heafey
Title V Coordinator
Air Quality Permits Program
Air and Radiation Administration
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230

RE: Part 70 Permit Renewal Application for AES Warrior Run Plant (Permit No. 24-001-00203)

Dear Ms. Heafey:

I am pleased to submit (enclosed) two hard copies and one electronic copy of the *Permit Application for Renewal of Part 70 Permit No. 24-001-00203* for the AES Warrior Run cogeneration plant located in Cumberland, Maryland. The current Part 70 permit expires August 31, 2020. This application satisfies the regulatory requirements under COMAR 26.11.03.02B(3)(b) and under Section II – General Conditions 5 of the current Part 70 permit to submit a completed application for renewal at least 12 months before the expiration date of the permit.

AESWR Limited Partnership has strived to develop a complete application; all appropriate renewal application forms (and supporting appendices) are enclosed. AESWR Limited Partnership is requesting, per COMAR 26.11.03.23, that the renewed Part 70 permit issued as a result of this application expressly incorporates a permit shield for the AES Warrior Run plant.

If you have any questions regarding this application, please call me at 301-777-0055, ext. 1105. Thank you very much for your attention to this matter.

Sincerely,

Kara Hawkins

Enclosure

PERMIT APPLICATION FOR RENEWAL
of
PART 70 PERMIT NO. 24-001-00203
for
AES Warrior Run Plant

AESWR Limited Partnership
11600 Mexico Farm Road, S.E.
Cumberland, Maryland 21502
(301) 777-0055 (phone)
(301) 777-8772 (fax)

August 2019

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard • Suite 720 • Baltimore, Maryland 21230-1720
410-537-3000 • 800-633-6101 • <http://www.mde.maryland.gov>

Air and Radiation Administration • Air Quality Permits Program

**Budget Reconciliation and Financing Act of 2003
(Commonly referred as Maryland House Bill 935)**

On July 1, 2003, House Bill 935, Chapter 203 amended § 1-203 of the Environment Article, Annotated Code of Maryland, as follows:

Section 1-203(b).

(1) A license or permit is considered renewed for purposes of this subsection if the license or permit is issued by a unit of State government to a person for the period immediately following a period for which the person previously possessed the same or a substantially similar license.

(2) Before any license or permit may be renewed under this article, **the issuing authority shall verify through the office of the Comptroller (emphasis added)** that the applicant has paid all undisputed taxes and the unemployment insurance contributions payable to the Comptroller or the Secretary of Labor, Licensing, and Regulation or that the applicant has provided for payment in a manner satisfactory to the unit responsible for collection.

In order for the Maryland Department of the Environment (MDE) to verify this compliance, we would need you to provide the following information before we can process or issue your renewal license, permit, or certification:

Current MDE License/Permit No.: 24-001-00203

Name of Licensee or Permit Holder: AESWR Limited Partnership

Address: 11600 Mexico Farms Road, S.E.
Cumberland, MD 21502

Contact Name: Peter Bajc **Title:** Plant Manager

Contact Telephone Number: 301-777-0055 ext. 1101

Privacy Act Notice: This Notice is provided pursuant to the Federal Privacy Act of 1974, 5 U.S.C. § 552a. Disclosure of your Social Security or Federal Tax Identification on this form is mandatory pursuant to the provisions of § 1-203 (2003) of Environment Article, Annotated Code of Maryland, which requires MDE to verify that an applicant for a permit or license has paid all undisputed taxes and unemployment insurance. Social Security and Federal Tax Identification Nos. will not be used for any purposes other than those described in this Notice.

Federal Employer Identification Number (FEIN): 54-1678428

Certification: I certify that the above information is true and correct to the best of my knowledge.

 08/12/19
Signature Date

Complete and return this form to Sena Harlley at the above address. If you have any questions, please contact Ms. Harlley at (410) 537-3251.

INTRODUCTION

AESWR Limited Partnership has a Part 70 Operating Permit, Permit No. 24-001-00203, issued September 1, 2015 (the 2015 Operating Permit). This document is the completed application for renewal of the 2015 Part 70 Operating Permit.

Summary of Changes

This renewal application includes the following key changes from the 2015 Operating Permit and its renewal application:

- Cover Page
 - Updated “Name of Owner or Operator”
- Section 3A for EU-1
 - Revised figure entitled *One (1) Atmospheric Fluidized Bed Combustion Boiler* to clarify limestone storage
- Section 3A for Other EU Point Sources
 - Revised figure entitled *Coal Processing and Storage Operations* to include EU-19 (Fugitives)
- Sections 3B for EU-12 and EU-17 and EU-18 (NO_x requirements)
 - Clarified (in red font) specific requirements of COMAR 26.11.09.08 K (3)
- State-Only Enforceable Requirements regarding COMAR 26.11.15.05 and COMAR 26.11.15.06
 - Clarified (in red font) reference to the appropriate COMAR citation for the definition of “fuel burning equipment”
- State-Only Enforceable Requirement
 - Included (in red font) COMAR 26.11.38.03 D (2) as an applicable requirement
- Appendix A – MATS Rule Applicable Requirements
 - Revised MATS Rule language (in red font) to include corrections and amendments promulgated since issuance of current Part 70 Permit
 - Specified several paragraphs under §63.9984 as “No Longer Applicable” (in blue font)
 - Under item 3 of Table 3 to Subpart UUUUU of Part 63
 - Corrected AESWR selection of paragraph (1) for the definition of “startup” in §63.10042 (in blue font)
 - Specified items relating to paragraph (2) of the definition of “startup” in §63.10042 as “Not Applicable” (in blue font)
 - Specified a subparagraph under §63.10005 as “No Longer Applicable” (in blue font)
 - Specified several subparagraphs under §63.10031 as “No Longer Applicable” (in blue font)

PERMIT APPLICATION FOR RENEWAL OF PART 70 PERMIT NO. 24-001-00203

AESWR Limited Partnership

AES Warrior Run Plant

TABLE OF CONTENTS

- I. Application Completeness Checklist
- II. Cover Page (Facility Information)
- III. Section 1 – Certification Statements
- IV. Section 2 – Facility Description Summary
- V. Section 3A – Emissions Unit Descriptions
- VI. Section 3B – Citation to and Description of Applicable Federally Enforceable Requirements
- VII. Section 3C – Obsolete, Extraneous, or Insignificant Permit Conditions
- VIII. Section 3D – Alternate Operating Scenarios
- IX. Section 3E – Citation to and Description of Applicable Federally Enforceable Requirements for An Alternate Operating Scenario
- X. Section 4 – Control Equipment
- XI. Section 5 – Summary Sheet of Potential Emissions
- XII. Section 6 – Explanation of Proposed Exemptions from Otherwise Applicable Federally Enforceable Requirements
- XIII. Section 7 – Compliance Schedule for Noncomplying Emissions Units
- XIV. State-Only Enforceable Requirements
- XV. Insignificant Activities Check-off List

APPENDIX A – MATS Rule Applicable Requirements

APPENDIX B – 2018 Emissions Certification Report

APPENDIX C – CAM Plan

APPENDIX D – 2018 A-COMP Report

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION CHECKLIST**

VI . Application Completeness Checklist

The purpose of this part is to list the information required to achieve a Part 70 application shield.

Cover Page

- (✓) Name and address of owner or operator, including telephone number.
- (✓) Name and address of facility, including the plant manager's name and telephone number.
- (✓) A 24-hour emergency telephone number for air pollution matters.

Section 1 CERTIFICATION STATEMENTS

- (✓) The certification statement completed and signed by a responsible official.

Section 2 FACILITY DESCRIPTION SUMMARY

- (✓) A brief description of each of the source's process(es), including all applicable SIC codes and end products.
- (✓) Flow diagrams indicating all emissions units, emission points, and control devices.
- (✓) A plot plan of the entire facility.
- (✓) Emission Certification Report.
- (✓) General Emissions Information.

Section 3 EMISSIONS UNIT DESCRIPTIONS

This section must be completed for each emissions unit.

Part A

- (✓) Emissions unit number.
- (✓) Detailed description of unit, including all emission points.
- (✓) Federally enforceable limit(s) on the operating schedule.

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION CHECKLIST**

- (✓) Fuel consumption information for any emissions unit that consumes fuel including the type of fuel, percent sulfur, and annual usage of fuel.

Part B

- (✓) A citation and description of each federally enforceable requirement, including all emission standards, for each emissions unit.
- (✓) A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.
- (✓) The frequency of submittal of the compliance demonstration during the permit term.

Part C

- (✓) Emissions unit number.
- (✓) Permit to construct number.
- (✓) Emissions point number(s).
- (✓) Date(s) the permit to construct was issued.
- (✓) Condition number(s) as indicated on the permit to construct.
- (✓) Description of the permit condition(s) and the reason(s) why they are believed to be obsolete, extraneous, or insignificant.

Part D

- (✓) Description of all alternate operating scenarios that apply to an emissions unit.
- (✓) Number assigned to each scenario.
- (✓) Emissions unit number.

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION CHECKLIST**

- (✓) Description of the operating parameters for the emissions unit and other information which describes the how the operation of the unit will change under the different scenario.

Part E

- (✓) A citation and description of each federally enforceable requirement triggered by an operating scenario, including all emission standards, for each emissions unit.
- (✓) As an attachment, the date and results of the most recent compliance demonstration for each emission standard and/or emissions certification report with relevant supporting documentation.
- (✓) A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.
- (✓) The frequency of submittal of the compliance demonstration during the permit term.

Section 4 CONTROL EQUIPMENT

- (✓) The type of each piece of air pollution control equipment
- (✓) The capture and control efficiencies of the control equipment.

Section 5 SUMMARY SHEET OF POTENTIAL EMISSIONS

- (✓) Quantity of potential emissions for criteria pollutants and HAPs emitted in tons per year for each emissions unit.
- (✓) Fugitive emission estimations for the entire facility for criteria pollutants and HAPs emitted in tons per year.
- (✓) Basis for all emission calculations.

Section 6 AN EXPLANATION OF PROPOSED EXEMPTIONS FROM OTHERWISE APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

- (✓) An explanation of the proposed exemption.

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION CHECKLIST**

**Section 7 COMPLIANCE SCHEDULE FOR NONCOMPLYING
EMISSIONS UNITS**

- (✓) Identification of emissions unit(s) not in compliance, including the requirement being violated and the effective compliance date.
- (✓) Detailed description of methods to be used to achieve compliance.
- (✓) A schedule of remedial measures, including an enforceable sequence of actions with milestones.

Attachment

- (✓) Checklist of Insignificant Activities
- (✓) CAM Plan (If Applicable)

PART 70 PERMIT APPLICATION FOR RENEWAL
 AIR AND RADIATION MANAGEMENT ADMINISTRATION

Facilities required to obtain a Part 70 permit under COMAR 26.11.03.01 must complete and return this form. Applications are incomplete unless all applicable information required by COMAR 26.11.03.03 and 26.11.03.13 is supplied. Failure to supply additional information required by the Department to enable it to act on the application may result in loss of the application shield and denial of this application.

Owner and Operator:

Name of Owner or Operator: AESWR Limited Partnership		
Street Address: 11600 Mexico Farm Rd, S.E.		
City: Cumberland	State: MD	Zip Code: 21502
Telephone Number: (301) 777-0055	Fax Number: (301) 777-8772	

Facility Information:

Name of Facility: AES Warrior Run		
Street Address: 11600 Mexico Farm Rd, S.E.		
City: Cumberland	State: MD	Zip Code: 21502
Plant Manager: Peter Bajc	Telephone Number: (301) 777-0055, x1101	Fax Number: (301) 777-8772
24-Hour Emergency Telephone Number for Air Pollution Matters: (301) 777-0055, x1130 (Control Room)		

List, on a separate page, the names and telephone numbers of other facility owners and persons with titles

TABLE 1 OTHER FACILITY OWNERS AND PERSONS

NAME	TITLE	OFFICE NO.	CELL NO.
Peter Bajc	Plant Manager	(301) 777-0055, x1101	
Kara Hawkins	Environmental Specialist	(301) 777-0055, x1105	

SECTION 1. CERTIFICATION STATEMENTS

1. Compliance Status with Applicable Enhanced Monitoring and Compliance Certification Requirements

The emission units identified in this application are in compliance with applicable enhanced monitoring and compliance certification requirements.

2. Certification of Current Compliance with All Applicable Federally Enforceable Requirements

Except for the requirements identified in Section 7 of this application, for which compliance is not achieved, I hereby certify, based on information and belief formed after reasonable inquiry, that the facility is currently in compliance with all applicable federally enforceable requirements and agree that the facility will continue to comply with these requirements during the permit term.

You must complete a Section 7 form for each non-complying emission unit.

3. Statement of Compliance with Respect to All New Applicable Requirements Effective During the Permit Term

I hereby state, based on information and belief formed after reasonable inquiry, that the facility agrees to meet, in a timely manner, all applicable federally enforceable requirements that become effective during the permit term, unless a more detailed schedule is expressly required by applicable requirement.

4. Risk Management Plan Compliance

I hereby certify that, based on information and belief formed after reasonable inquiry, that a Risk Management Plan as required under 112(r) of the Clean Air Act:

- has been submitted;
- will be submitted at a future date; or
- does not need to be submitted.

5. Statement of Truth, Accuracy, and Completeness

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

RESPONSIBLE OFFICIAL:

X P. Bajc 8-27-19
SIGNATURE DATE

Peter Bajc
PRINTED NAME
Plant Manager
TITLE

SECTION 2. FACILITY DESCRIPTION SUMMARY

1. Major Activities of Facility

Briefly describe the major activities, including the applicable SIC Code(s) and end product(s).

AESWR Limited Partnership operates the AES Warrior Run facility – a 180-MW coal-fired steam electric cogeneration facility (SIC 4911) and 150 ton per day beverage grade carbon dioxide production facility. The facility consists of an ABB-CE 2,070-MMBtu/hr coal-fired atmospheric circulating fluidized bed (ACFB) boiler burning bituminous coal and No. 2 fuel oil as a start-up fuel. A selective non-catalytic reduction (SNCR) system provides control of nitrogen oxides (NOx) emissions and injection of limestone into the fluidized bed of the boiler controls sulfur oxides (e.g., SO₂) emissions. Particulate matter emissions in the boiler flue gas are controlled by a baghouse.

2. Facility-Wide Emissions

A. This facility is required to obtain a Part 70 Operating Permit because it is:

Check appropriate box:

- Actual Major
 Potential Major
 Solid Waste Incineration Unit Requiring Permit Under § 129(e) of CAA

B. List the actual facility-wide emissions below:

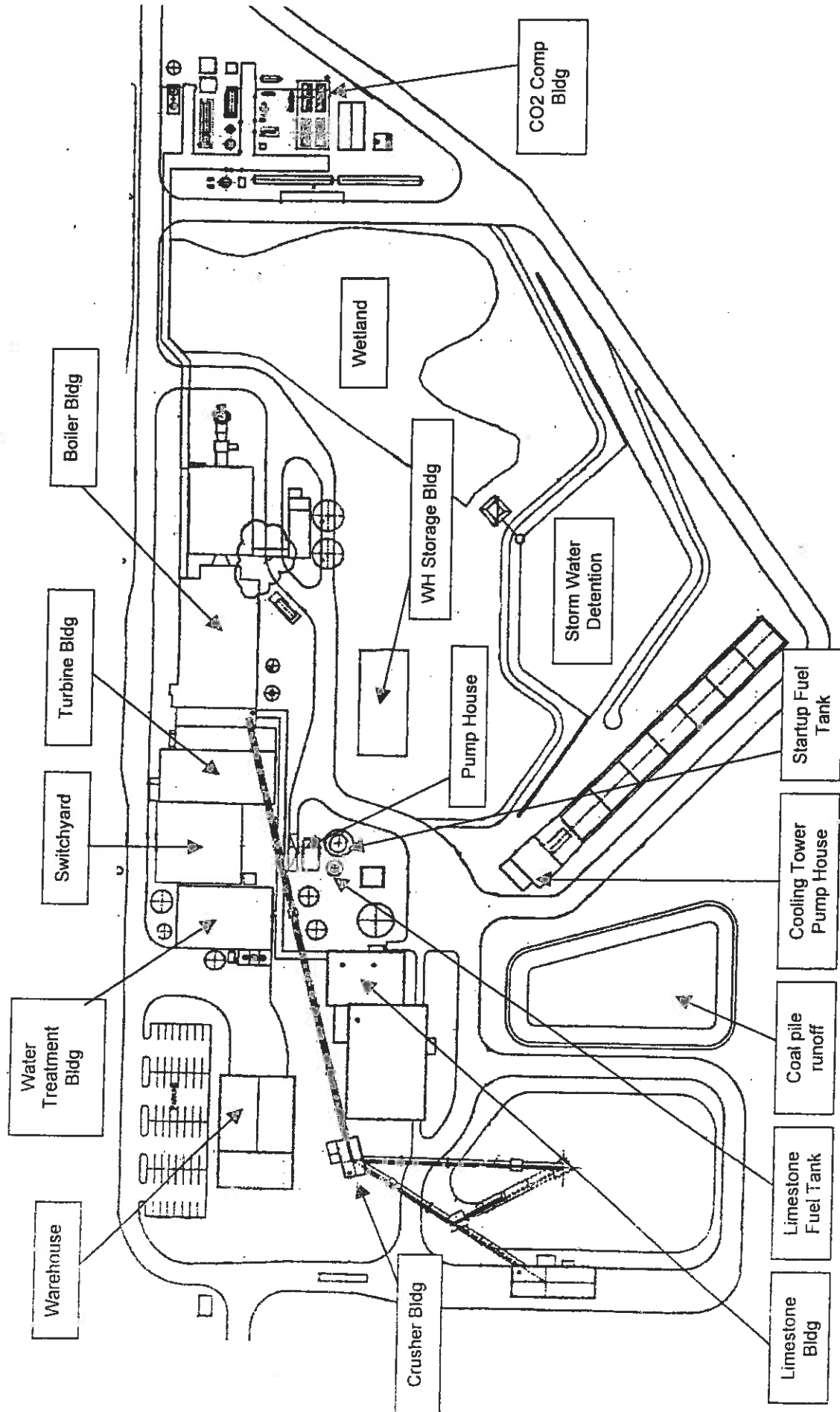
PM₁₀ 104* NO_x 496 VOC 2 SO_x 1,048 CO 823 HAPs 12

*Includes condensable particulate matter

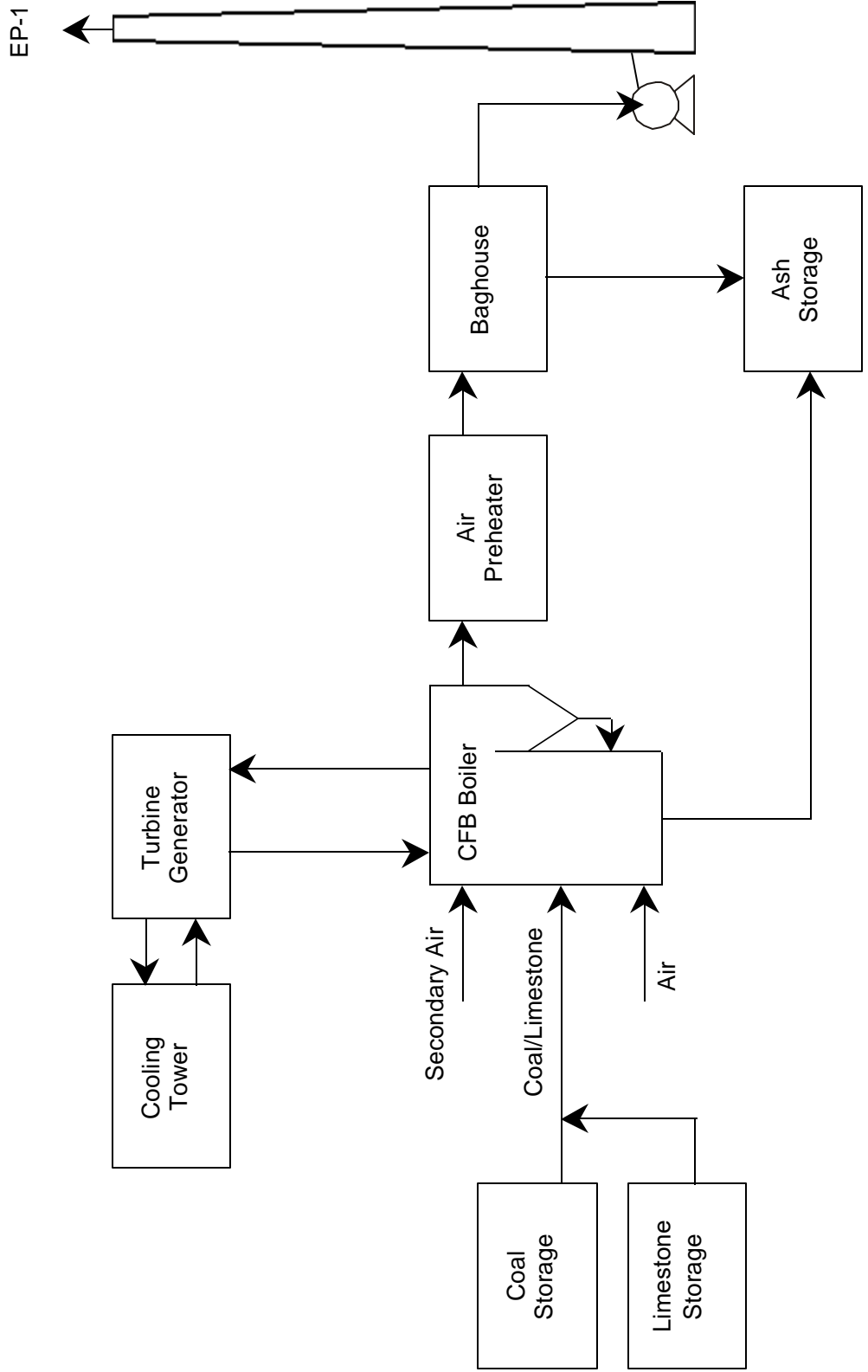
3. Include With the Application:

Flow Diagrams showing all emissions units, emission points, and control devices
(See Section 3A);

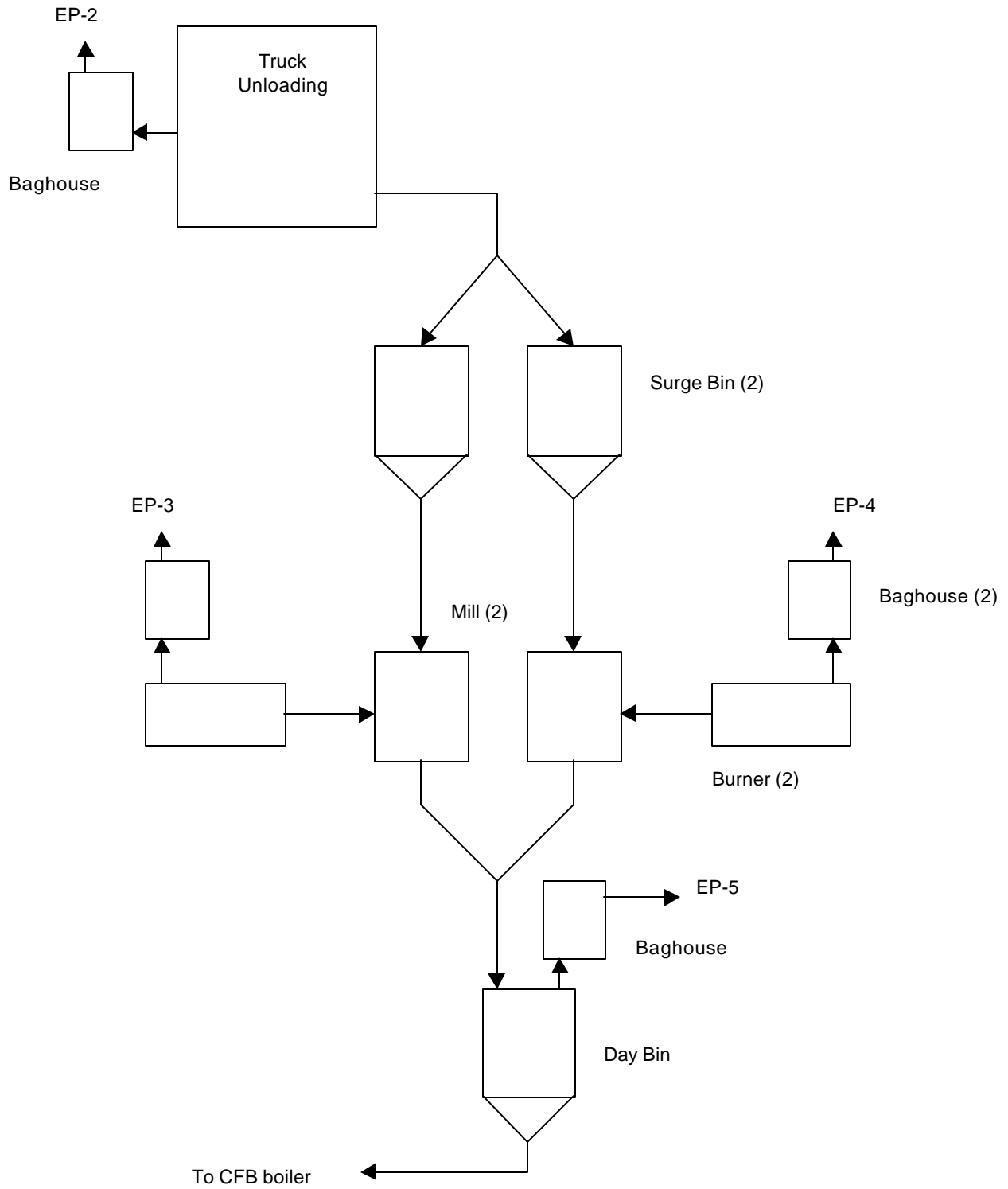
Emissions Certification Report (copy of the most recent submitted to the Department.)
(See Appendix B)



Map of AES Warrior Run



One (1) Atmospheric Fluidized Bed Combustion Boiler

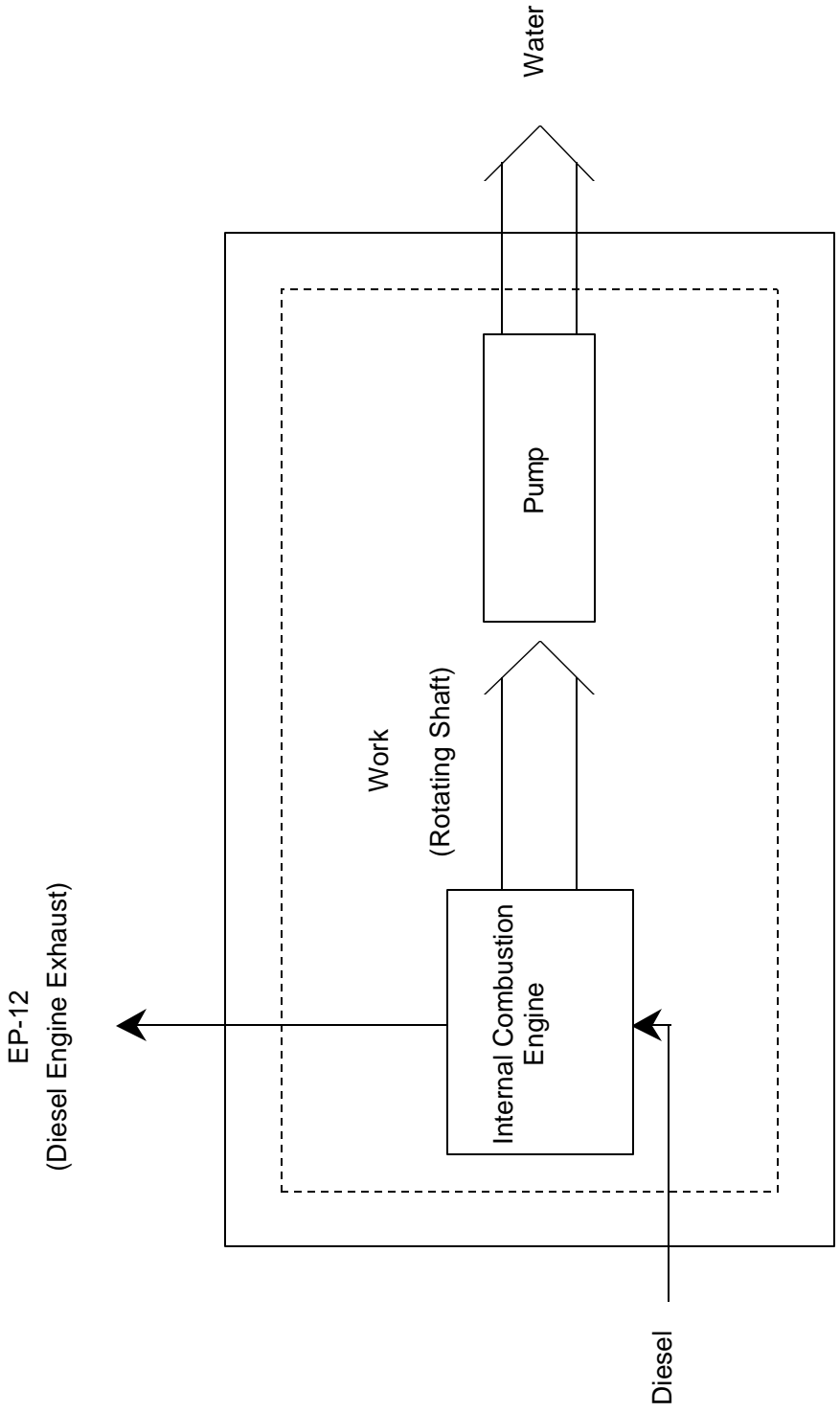


Limestone Crushers, Dryers, and Associated Equipment

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-12</p> <p>1a. Date of installation (month/year): 8/1999</p>	<p>2. MDE Registration No.:(if applicable) 001-9-0081</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>Emergency boiler feed water pump (EP-12) that burns #2 diesel fuel oil, with the pump rated at 525 HP.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: <u>PSD Approval #94-01A; Condition B9 (non-emergency operations)</u></p> <p>Continuous Processes: <u>1</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 100px;">200 hours/year (rolled <u>monthly</u>) <u> </u> days/year</p>													
<p>5. Fuel Consumption: Based on 2018 Emissions Certification Report</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Type(s) of Fuel</th> <th style="text-align: left;">% Sulfur</th> <th style="text-align: left;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. #2 Diesel fuel oil</td> <td>0.05</td> <td>200 gallons</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. #2 Diesel fuel oil	0.05	200 gallons	2. _____	_____	_____	3. _____	_____	_____
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1. #2 Diesel fuel oil	0.05	200 gallons											
2. _____	_____	_____											
3. _____	_____	_____											
<p>6. Emissions in Tons: See 2018 Emissions Certification Report</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx _____ SOx _____ VOC _____ PM10 _____ HAPs _____</p>													

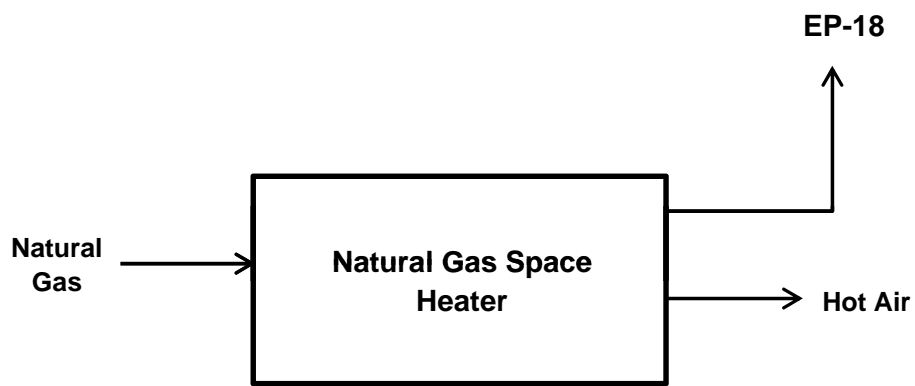
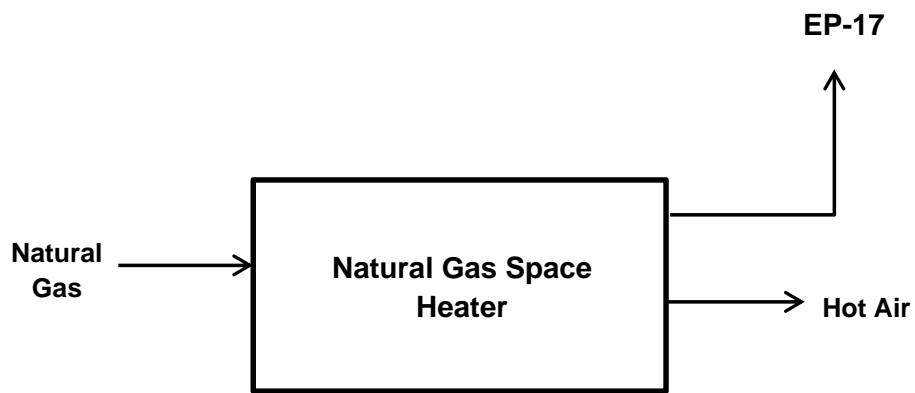


Emergency Boiler Feedwater Pump

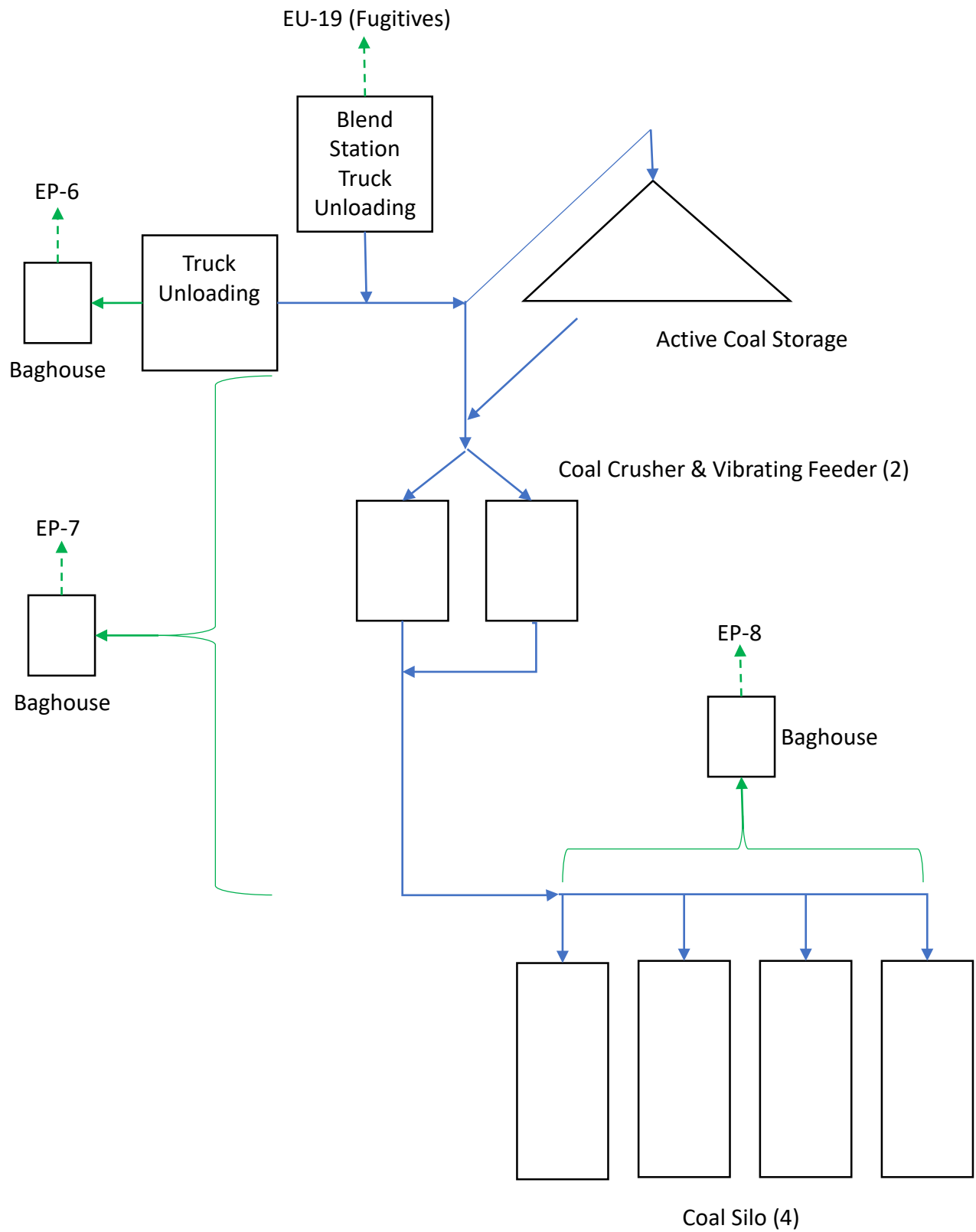
MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-17 and EU-18</p> <p>1a. Date of installation (month/year): 8/1999</p>	<p>2. MDE Registration No.:(if applicable) 001-6-0243 and 001-6-0244</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>Two space heaters (EP-17 and EP-18) with natural gas fired boilers, each rated at 4.5 MMBtu/hr. The heaters are used for comfort in the boiler building.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: _____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p>													
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2. _____													
3. _____													
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Two Natural Gas Space Heaters



Coal Processing and Storage Operations

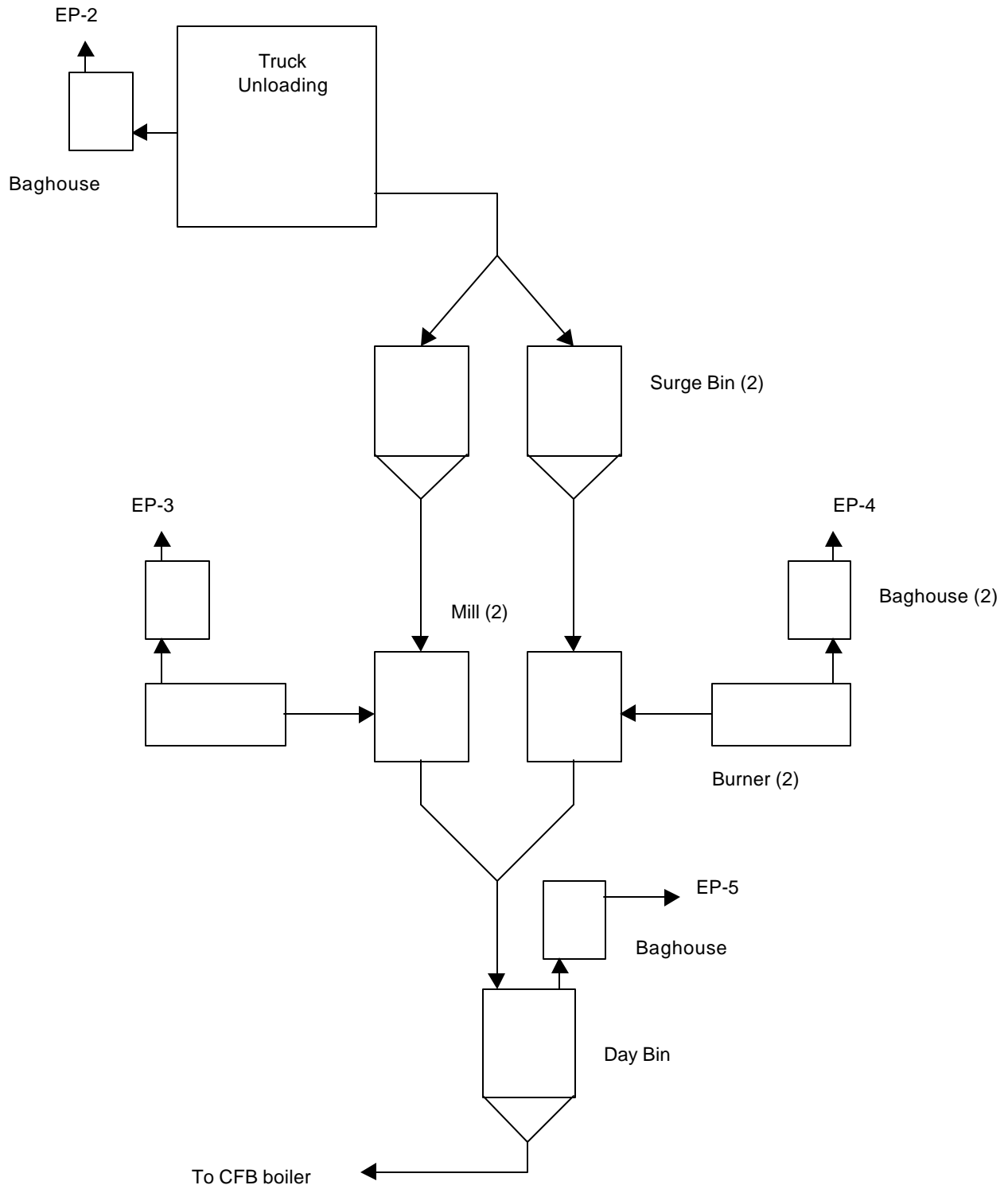
MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

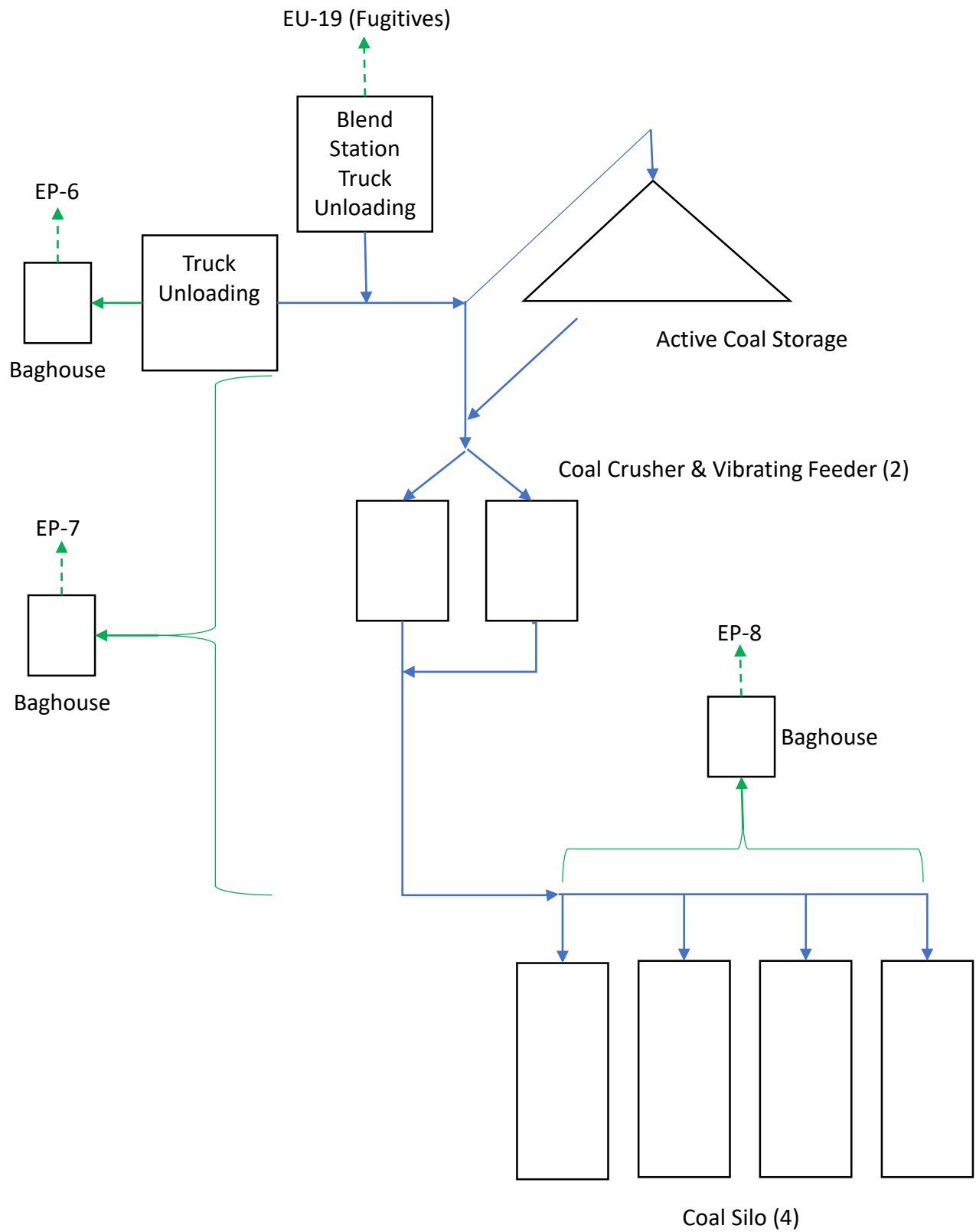
1. Emissions Unit No.: See attached table for point sources. 1a. Date of installation (month/year): See attached table for point sources.	2. MDE Registration No.:(if applicable) See attached table for point sources.												
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Table 1

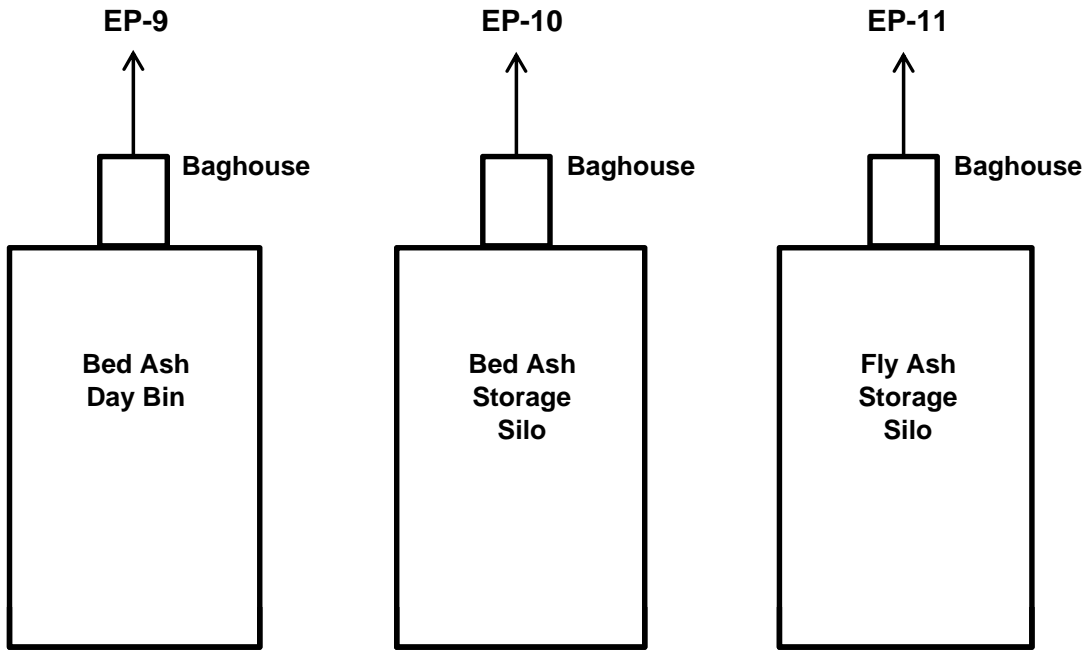
MDE Registration No.	Emissions unit Number	Emissions Unit Name	Emissions Unit Description	Installation Date	Fuel Consumptions and Emissions
001-6-0136	EU-2	Limestone Truck Unloading Operation	Limestone truck unloading operation. PM emissions are controlled by a baghouse.	8/1999	See 2018 Emissions Certification Report
001-6-0136	EU-5	Limestone Storage Silo	Limestone storage silo. PM emissions are controlled by a baghouse.	8/1999	See 2018 Emissions Certification Report
001-3-0127	EU-6	Coal Truck Unloading Operation	Truck unloading operation located in the coal unloading building. PM emissions are controlled by a baghouse.	8/1999	See 2018 Emissions Certification Report
001-3-0127	EU-7	Coal Crushing and Reclaiming System	Contains two crushers, two vibrating feeders, two enclosed reclaim conveyors, one enclosed stockpile conveyor, and one enclosed transfer conveyor, each located inside coal crushing building. Emissions are controlled by a baghouse.	8/1999; 3/2013 (Gundlach crusher modification)	See 2018 Emissions Certification Report
001-3-0127	EU-8	Coal Storage System	Four storage silos connected to one baghouse that controls PM emissions.	8/1999	See 2018 Emissions Certification Report
001-3-0127	EU-9	Bed Ash Day Bin	Bed ash day bin emissions vent through a baghouse.	8/1999	See 2018 Emissions Certification Report
001-3-0127	EU-10	Bed Ash Storage Silo	Bed ash storage silo emissions vent through a baghouse.	8/1999	See 2018 Emissions Certification Report
001-3-0127	EU-11	Fly Ash Storage Silo	Fly ash storage silo emissions vent through a baghouse	8/1999	See 2018 Emissions Certification Report
001-6-0304	EU-19	Fuel Blending Station	One (1) automated coal blending system comprised of a 45-ton feed hopper and a 30-in drag-chain conveyor	3/2013	See 2018 Emissions Certification Report



Limestone Crushers, Dryers, and Associated Equipment



Coal Processing and Storage Operations



Fly Ash and Bed Ash Storage and Loadout Operations

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions **General Reference:** COMAR 26.11.06.03D

Briefly describe the Emission Standard/Limit or Operational Limitation:

PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

The Permittee shall not cause or permit any building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions **General Reference:** COMAR 26.11.07

Briefly describe the Emission Standard/Limit or Operational Limitation:

OPEN BURNING

Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions **General Reference:** COMAR 26.11.05.04

Briefly describe the Emission Standard/Limit or Operational Limitation:

AIR POLLUTION EPISODE

When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating air pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions

General Reference: COMAR 26.11.01.07 and COMAR 26.11.03.06C(7)

Briefly describe the Emission Standard/Limit or Operational Limitation:

REPORT OF EXCESS EMISSIONS AND DEVIATIONS

The Permittee shall comply with the following conditions for occurrences of excess emissions and deviations from requirements of this permit, including those in Section VI – State-only Enforceable Conditions:

- a. Report any deviation from permit requirements that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;
- b. Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence;
- c. When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;
- d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.
- e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Semi-annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions **General Reference:** COMAR 26.11.03.03B(23) and 40 CFR 68

Briefly describe the Emission Standard/Limit or Operational Limitation:

ACCIDENTAL RELEASE PROVISIONS

The Permittee is subject to 40 CFR 68. The Permittee shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions **General Reference:** COMAR 26.11.01.04

Briefly describe the Emission Standard/Limit or Operational Limitation:

GENERAL TESTING REQUIREMENTS

The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with this Part 70 permit. The Department, at its option, may witness or conduct these tests. This testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions **General Reference:** COMAR 26.11.01.04

Briefly describe the Emission Standard/Limit or Operational Limitation:

EMISSIONS TEST METHODS

Compliance with the emissions standards and limitations in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

- a. 40 CFR 60, appendix A
- b. 40 CFR 51, appendix M
- c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions

General Reference: COMAR 26.11.01.05-1 and COMAR 26.11.02.19C and COMAR 26.11.02.19D

Briefly describe the Emission Standard/Limit or Operational Limitation:

EMISSIONS CERTIFICATION REPORT

The Permittee shall certify actual annual emissions of regulated pollutants from the facility on a calendar year basis.

- a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;
- b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:
 - (1) Familiar with each source for which the certifications forms are submitted, and
 - (2) Responsible for the accuracy of the emissions information;
- c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:
 - (1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;
 - (2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;
 - (3) Amounts, types and analyses of all fuels used;
 - (4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;
 - (5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:
 - (a) Significant maintenance performed,
 - (b) Malfunctions and downtime, and
 - (c) Episodes of reduced efficiency of all equipment;
 - (6) Limitations on source operation or any work practice standards that significantly affect emissions; and
 - (7) Other relevant information as required by the Department.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions **General Reference:** COMAR 26.11.03.06G(6) and (7)

Briefly describe the Emission Standard/Limit or Operational Limitation:

COMPLIANCE CERTIFICATION REPORT

The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each applicable standard, emissions limitation, and work practice for the previous calendar year by April 1 of each year.

- a. The compliance certification shall include:
 - (1) The identification of each term or condition of this permit which is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether the compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of each source, currently and over the reporting period; and
 - (5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.
- b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions General Reference: COMAR 26.11.02.02F

Briefly describe the Emission Standard/Limit or Operational Limitation:

CERTIFICATION BY RESPONSIBLE OFFICIAL

All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a responsible official as to truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Quarterly, Semi-annual, and Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions **General Reference:** COMAR 26.11.03.06C(5)

Briefly describe the Emission Standard/Limit or Operational Limitation:

SAMPLING AND EMISSIONS TESTING RECORD KEEPING

The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

- a. The location as specified in this permit, and the date and time that samples and measurements are taken;
- b. All pertinent operating conditions existing at the time that samples and measurements are taken;
- c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;
- d. The identity of the Permittee, individual, or other entity that performed the analysis;
- e. The analytical techniques and methods used; and
- f. The results of each analysis.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions **General Reference:** COMAR 26.11.03.06C(6)

Briefly describe the Emission Standard/Limit or Operational Limitation:

GENERAL RECORD KEEPING

The Permittee shall retain records of all monitoring data and information that support the compliance certification for a period of five (5) years from the date that the monitoring, sample measurement, application, report or emissions test was completed or submitted to the Department.

These records and support information shall include:

- a. All calibration and maintenance records;
- b. All original data collected from continuous monitoring instrumentation;
- c. Records which support the annual emissions certification; and
- d. Copies of all reports required by this permit.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions **General Reference:** COMAR 26.11.26.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

GENERAL CONFORMITY

The Permittee shall comply with the general conformity requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions **General Reference:** 40 CFR 61, Subpart M

Briefly describe the Emission Standard/Limit or Operational Limitation:

ASBESTOS PROVISIONS – Not applicable

The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

Permit Shield Request: Not applicable

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Not applicable

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions **General Reference:** 40 CFR 82, Subpart F

Briefly describe the Emission Standard/Limit or Operational Limitation:

OZONE DEPLETING REGULATIONS – Not applicable

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in subpart B:

- a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.
- b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
- d. Persons performing maintenance, service, repairs or disposal of appliances shall certify with the Administrator pursuant to 40 CFR 82.162.
- e. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.166.
- f. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
- g. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

Permit Shield Request: Not applicable

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Not applicable

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Plant Wide Conditions **General Reference:** _____

Briefly describe the Emission Standard/Limit or Operational Limitation:

ACID RAIN PERMIT - Not applicable

Permit Shield Request: Not applicable

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Not Applicable

Testing: Not Applicable

Record Keeping: Not Applicable

Reporting: Not Applicable

Frequency of submittal of the compliance demonstration: Not applicable

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1 General Reference: 40 CFR 60.42Da(b) & COMAR 26.11.09.05A(1)

Briefly describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.09.05A(1) prohibits the discharge of visible emissions from any fuel burning equipment other than water in an uncombined form, which is greater than 20%, except as allowed under COMAR 26.11.09.05A(3); allows visible emissions during load changing, soot blowing, startup or occasional cleaning of control equipment if visible emissions are not greater than 40% opacity and do not occur for more than 6 consecutive minutes in any sixty-minute period. 40 CFR 60.42 Da(b)-NSPS Subpart Da limits gases discharged into the atmosphere greater than 20% opacity (6-minute average) except for one 6-minute period per hour of not more than 27% opacity. The standards under §60.42 Da apply at all times except during periods of startup, shutdown, or malfunction (40 CFR 60.48 Da(a)). Exception (40 CFR 60.42 Da(b)(1)) – if facility elects to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to this subpart, they are exempt from the opacity standard specified in paragraph (b) of this section. Note that compliance with the visible emissions limit under COMAR 26.11.09.05A(1) will be the basis for demonstrating compliance with the applicable NSPS regulation.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- X Quarterly Monitoring Report:
X Annual Compliance Certification:
X Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.01.10 & 26.11.31, 40 CFR §60.49Da, and PSD Approval No. 94-01A

The Permittee shall continuously monitor opacity of the stack gases using a continuous opacity monitor (COM) that is certified in accordance with 40 CFR Part 60, Appendix B and that meets the quality assurance criteria of COMAR 26.11.31

Testing: 40 CFR Part 60, Subpart Da, PTC No. 001-3-0127, 001-6-0136, and 001-4-0067

Perform QA/QC procedures on the Continuous Opacity Monitoring (COM) system as required by permit to construct (PTC) No. 001-3-0127, 0136 & 0067 and NSPS Subpart Da. The Permittee shall provide the Department a notice of intent to audit the CEM system at least 30 day prior to the proposed test date.

Record Keeping: COMAR 26.11.01.11E and 40CFR §60. 49Da

The Permittee shall maintain all CEM records necessary to comply with the data reporting requirements of COMAR 26.11.01.11E and 40 CFR §60.49Da.

Reporting: COMAR 26.11.01.11E and 40 CFR §60.51Da

A quarterly summary report shall be submitted to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following: the cause, time periods, and magnitude of all emissions which exceed the applicable standards; source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned; time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the validity of the emission data; quarterly totals of excess emissions, installation downtime and CEM downtime during the calendar quarter; quarterly quality assurance activities; daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation. For any periods for which opacity data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operation of the control system and affected facility during periods of data unavailability are to be compared with operation of the control systems and affected facility before and following the period of unavailability (40 CFR §60.51Da(f)).

Frequency of submittal of the compliance demonstration: Quarterly, Semi-annual, and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1 General Reference: 40 CFR 60.42 Da(a) & PSD Approval #94-01A

Briefly describe the Emission Standard/Limit or Operational Limitation:

40 CFR 60.42 Da(a) limits particulate matter emissions to 0.03 lb/MMBtu heat input. The limit under 40 CFR 60.42 Da applies at all times except during periods of startup, shutdown, or malfunction (40 CFR 60.48 Da(a)). Compliance provisions - §60.48Da(f): For affected facilities for which construction, modification, or reconstruction commenced before May 4, 2011, compliance with the applicable daily average PM emissions limit is determined by calculating the arithmetic average of all hourly emission rates each boiler operating day, except for data obtained during startup, shutdown, or malfunction periods. Daily averages must be calculated for boiler operating days that have out-of-control periods totaling no more than 6 hours of unit operation during which the standard applies.

PSD Approval #94-01A limits PM₁₀ emissions to 0.015 lb/MMBtu heat input (3 hour average) and 136 tons per year.

Note that the same monitoring, recordkeeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.42 Da(a) and the PSD Permit limit.

RACT Limit - COMAR 26.11.09.06(A)(2) limits particulate emissions to be discharged into the atmosphere in excess of the amounts shown in Figure 2. For the ACFB boiler this is 0.1 lb/MMBtu heat input. Compliance with the PSD BACT limit assures compliance with the RACT limit.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall perform requirements of the CAM Plan submitted as an appendix to the renewal application.

Testing: COMAR 26.11.03.06C

Perform a total particulate and PM₁₀ emissions test once during the life of the permit. Test protocol shall be submitted to the Department for review and approval at least 30 days before any testing is conducted. Furthermore, all testing shall be conducted at reasonable time and with 10 days notice to the Department to allow representation by Department's personnel.

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain a record of the results of particulate matter (total PM and PM₁₀) stack tests for at least five years.

Reporting: COMAR 26.11.01.04A

The Permittee shall submit the results of stack tests in a final report within 45 days from test completion.

Frequency of submittal of the compliance demonstration: Once during life of permit

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1

General Reference: 40 CFR 60.43 Da(a), PSD Approval #94-01A,
COMAR 26.11.09.07(A)(1)(a), and Cross-State Air Pollution Rule

Briefly describe the Emission Standard/Limit or Operational Limitation: 40 CFR 60.43 Da(a)(1) - (4) prohibit the discharge of any gases into the atmosphere which contain sulfur dioxide from the combustion of solid fuel in excess of 1) 1.2 lb/MMBtu heat input per hour and 10% of the potential combustion concentration (90% reduction); 2) 30% of the potential combustion concentration (70% reduction), when emissions are less than 0.60 lb/MMBtu of heat input; 3) 1.4 lb/MWh; or 4) 0.15 lb/MMBtu heat input. 40 CFR 60.43 Da(g) states that compliance with the emission limitation and percent reduction requirements are determined on a 30-day rolling average basis.

PSD Approval #94-01A limits sulfur dioxide emissions to 0.21 lb/MMBtu of heat input per 3-hr block average; 0.19 lb/MMBtu of heat input per 24-hr block average and 0.16 lb/MMBtu of heat input per annual average (1403 tons per year). In addition, the boiler shall be designed to achieve control efficiency for sulfur dioxide of no less than 95% (based on a 30-day block average) and based on the design coal in the PSD application.

Note: The same monitoring, record keeping and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.43Da and the PSD limit.

COMAR 26.11.09.07(A)(1)(a) limits the oxides of sulfur to 3.5 lb/MMBtu and sulfur dioxide in distillate fuel oil to 0.3 %. Compliance with the PSD BACT limit assures compliance with these RACT limits).

Cross-State Air Pollution Rule: 40 CFR Part 97 Subpart CCCCC requires compliance with the provisions and requirements of §97.601 – §97.635. Note: §97.606(c) SO₂ emissions requirements. For TR SO₂ Group 1 emissions limitation: As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall hold, in the source's compliance account, TR SO₂ Group 1 allowances available for deduction for such control period under §97.624(a) in an amount not less than the tons of total SO₂ emissions for such control period from all TR SO₂ Group 1 units at the source. Allowance transfer deadline means, for a control period in a given year, midnight of March 1 (if it is a business day), or midnight of the first business day thereafter (if March 1 is not a business day), immediately after such control period and is the deadline by which a TR SO₂ Group 1 allowance transfer must be submitted for recordation in a TR SO₂ Group 1 source's compliance account in order to be available for use in complying with the source's TR SO₂ Group 1 emissions limitation for such control period in accordance with §§97.606 and 97.624.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

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Methods used to demonstrate compliance:

Monitoring: 40 CFR Part 60, Subpart Da, COMAR 26.11.01.11B(1), PSD Approval #94-01A, and PTC No. 001-3-0127, Cross-State Air Pollution Rule

The Permittee shall continuously monitor sulfur dioxide emissions in accordance with the requirements of 40 CFR §60.49Da(b) to demonstrate compliance with the emission limits of 0.21 lb/MMBtu per 3-hr average; 0.19 lb/MMBtu per 24-hr average, and 0.16 lb/MMBtu per annual average and NSPS emissions limitations. The Permittee shall ensure that valid CEM data for SO₂ and CO₂ be obtained for a minimum of 90% of the operating hours in each quarter. The Permittee must obtain at least two valid data hours to calculate a valid three hour CEM average and at least twelve hours to calculate a valid daily CEM average.

Cross State Air Pollution Rule: The permittee shall comply with the monitoring requirements of §97.606, §97.630, §97.631, §97.632, and §97.633.

Testing: 40 CFR Part 60, Subpart Da and PTC No. 001-3-0127

Perform performance certification testing as required by 40 CFR Part 60, Appendix F on the sulfur dioxide continuous emissions monitoring system. The Permittee shall provide the Department a notice of intent to audit the CEM system at least 30 day prior to the proposed test date.

Record Keeping: COMAR 26.11.01.11E, Cross-State Air Pollution Rule

The Permittee shall maintain all CEM records necessary to comply with the data reporting requirements of COMAR 26.11.01.11E for the demonstration of compliance with the PSD standards.

Cross State Air Pollution Rule: The permittee shall comply with the recordkeeping requirements of §97.606, §97.630, §97.634, the NOx Annual Trading Program (§97.406, §97.430, and §97.434) and the NOx Ozone Season Trading Program (§97.506, §97.530, and §97.534).

Reporting: COMAR 26.11.01.11E(2)(c) and 40 CFR §60.51Da(b)(3) & (f), Cross-State Air Pollution Rule

The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter that contains the information listed in COMAR 26.11.01.11E(2)(c). The Permittee shall report the NSPS percent reduction of the potential concentration of sulfur dioxide for each 30 successive boiler operating days, ending with the last 30 day period in the quarter, reasons for non-compliance with the standard, and description of corrective actions taken. For any period for which sulfur dioxide emissions data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operation of the control system and affected facility during periods of data unavailability is to be compared with the operation of the control systems and affected facility before and following the period of unavailability.

Cross State Air Pollution Rule: The permittee shall comply with the reporting requirements of §97.630, §97.633, and §97.634.

Frequency of submittal of the compliance demonstration: Quarterly, Semi-annual, and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1

General Reference: 40 CFR 60.44 Da(a)(1) & PSD
Approval #94-01A, NOx RACT, Cross-State Air Pollution Rule

Briefly describe the Emission Standard/Limit or Operational Limitation:

40 CFR 60.44 Da(a)(1) prohibits the discharge of any gases into the atmosphere which contain nitrogen oxides in excess of 0.60 lb/MMBtu of heat input based on a 30-day rolling average. The limit under 40 CFR 60.44 Da applies at all times except during periods of startup, shutdown, or malfunction (40 CFR 60.48 Da(a)).

PSD Approval #94-01A limits nitrogen oxide emissions to 0.10 lb MMBtu/hr per 24-hr block average and 907 tons per year. PSD approval includes the operation of an SNCR system to achieve these NOx emission limits.

NOx RACT: COMAR 26.11.09.08B(1)(c) limits emission for coal (dry bottom) to 0.38 lb/MMBtu of heat input based on a 30-day rolling average.

Note that the same monitoring, recordkeeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.44 Da, the PSD permit limit, and the NOx RACT limit.

Cross-State Air Pollution Rule: TR NOx Annual Trading Program 40 CFR Part 97 Subpart AAAAA The Permittee shall comply with the provisions and requirements of §97.401 through §97.435. Note: §97.406(c) NOx emissions requirements. For TR NOx Annual emissions limitation: As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NOx Annual source and each TR NOx Annual unit at the source shall hold, in the source's compliance account, TR NOx Annual allowances available for deduction for such control period under §97.424(a) in an amount not less than the tons of total NOx emissions for such control period from all TR NOx Annual units at the source. Allowance transfer deadline means, for a control period in a given year, midnight of March 1 (if it is a business day), or midnight of the first business day thereafter (if March 1 is not a business day), immediately after such control period and is the deadline by which a TR NOx Annual allowance transfer must be submitted for recordation in a TR NOx Annual source's compliance account in order to be available for use in complying with the source's TR NOx Annual emissions limitation for such control period in accordance with §§97.406 and 97.424.

TR NOx Ozone Season Trading Program 40 CFR Part 97 Subpart BBBBB The Permittee shall comply with the provisions and requirements of §97.501 through §97.535. Note: §97.506(c) NOx emissions requirements. For TR NOx Ozone Season emissions limitation: As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NOx Ozone Season source and each TR NOx Ozone Season unit at the source shall hold, in the source's compliance account, TR NOx Ozone Season allowances available for deduction for such control period under §97.524(a) in an amount not less than the tons of total NOx emissions for such control period from all TR NOx Ozone Season units at the source. Allowance transfer deadline means, for a control period in a given year, midnight of December 1 (if it is a business day), or midnight of the first business day thereafter (if December 1 is not a business day), immediately after such control period and is the deadline by which a TR NOx Ozone Season allowance transfer must be submitted for recordation in a TR NOx Ozone Season source's compliance account in order to be available for use in complying with the source's TR NOx Ozone Season emissions limitation for such control period in accordance with §§97.506 and 97.524.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Methods used to demonstrate compliance:

Monitoring: 40 CFR Part 60, Subpart Da, PSD Approval #94-01A, and PTC No. 001-3-0127, Cross-State Air Pollution Rule
The Permittee shall operate a continuous emission monitoring (CEM) system to continuously monitor the NO_x emissions. The CEM system shall meet the performance specification of 40 CFR Part 75, Subpart H. The Permittee shall ensure that valid CEM data for NO_x and CO₂ be obtained for a minimum of 90% of the operating hours in each quarter. The Permittee must obtain at least twelve hours to calculate a valid daily CEM average.

Cross State Air Pollution Rule: The permittee shall comply with the monitoring requirements of the NO_x Annual Trading Program (§97.406, §97.430, §97.431, §97.432, and §97.433) and the NO_x Ozone Season Trading Program (§97.506, §97.530, §97.531, §97.532, and §97.533).

Testing: 40 CFR Part 60, Subpart Da and PTC No. 001-3-0127

Perform performance certification testing as required by 40 CFR Part 75, Subpart H on the NO_x continuous emissions monitoring system. The Permittee shall provide the Department a notice of intent to audit the CEM system at least 30 day prior to the proposed test date.

Record Keeping: COMAR 26.11.01.11E, Cross-State Air Pollution Rule

The Permittee shall maintain all CEM records necessary to comply with the data reporting requirements of COMAR 26.11.01.11E for the demonstration of compliance with the PSD standards.

Cross State Air Pollution Rule: The permittee shall comply with the recordkeeping requirements of §97.606, §97.630, §97.634, the NO_x Annual Trading Program (§97.406, §97.430, and §97.434) and the NO_x Ozone Season Trading Program (§97.506, §97.530, and §97.534).

Reporting: COMAR 26.11.01.11E, 40 CFR §60.51Da(f), Cross State Air Pollution Rule

The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter that contains the information listed in COMAR 26.11.01.11E. For any period for which nitrogen oxides emissions data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operation of the control system and affected facility during periods of data unavailability are to be compared with operation of the control systems and affected facility before and following the period of unavailability.

Cross State Air Pollution Rule: The permittee shall comply with the reporting requirements of the NO_x Annual Trading Program (§97.406, §97.430, §97.433, and §97.434), and the NO_x Ozone Season Trading Program (§97.506, §97.530, §97.533, and §97.534).

Frequency of submittal of the compliance demonstration: Quarterly, Semi-annual, and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No.: EU-1 **General Reference:** PSD Approval #94-01A

Briefly describe the Emission Standard/Limit or Operational Limitation:

The Permittee shall comply with the following emission limits required of the ACFB boiler per the PSD Approval #94-01A:

Pollutant	Maximum Emissions Std. (lb/MMBtu)	Maximum Annual Emissions (TPY)
Carbon Monoxide	0.15 per 24-hr average; 0.188 @ 40% load	1360
Hydrocarbons (non-methane as VOC)	0.005 per 3-hr average; 0.007 @ 40% load	45
Sulfuric Acid Mist	0.006 per 3-hr average	54.4
Fluorides (Total)	0.007 per 3-hr average	5.89
Beryllium	7.7×10^{-7} per 3-hr average	7×10^{-3}
Lead	9.9×10^{-6} per 3-hr average	0.09
Mercury	1.7×10^{-5} per 3-hr average	0.16
Ammonia	0.005 per 3-hr average @ full load 0.008 @ 75% load 0.011 @ 40% load	45

The Permittee shall limit the heat input to the ACFB boiler to 17,934,480 MMBtu on a rolling 12-month basis.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C, 40 CFR Part 60, Subpart Da, and PSD Approval #94-01A

The Permittee shall properly operate and maintain the ACFB boiler in a manner consistent with the boiler combustion optimal performance and design criteria, and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance. The Permittee shall operate CEMs to continually monitor either the oxygen content or carbon dioxide of the ACFB boiler stack gases.

Testing: PTC No. 001-3-0127

See PTC testing requirements.

Record Keeping: COMAR 26.11.03.06C and PSD Approval #94-01A

Maintain records of the heat input of the ACFB on a daily basis. Maintain records of maintenance performed on the ACFB boiler that relate to combustion performance for at least five years. Maintain records of the CEMS readings for the oxygen or carbon dioxide content of the ACFB boiler stack gases for at least five years.

Reporting: PSD Approval #94-01A, PTC No. 001-3-0127, and COMAR 26.11.01.11E

Report on the quarterly CEM report the rolling 12-month heat input of the ACFB boiler during the quarter. Submit a CEMS summary data for oxygen or carbon dioxide along with the quarterly SO₂ and NO_x CEMS excess emissions report to the Department 30 days following the end of each calendar quarter.

Frequency of submittal of the compliance demonstration: Quarterly, Semi-annual, and Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1

General Reference: 40 CFR Part 63, Subpart UUUUU

Briefly describe the Emission Standard/Limit or Operational Limitation:

40 CFR §63.9984, §63.9991 and §63.10000

See Part 70 Permit Renewal Application, Appendix A, pp. 1-7

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: 40 CFR §63.10010, §63.10011, §63.10020, and §63.10021

Describe: See Part 70 Permit Renewal Application, Appendix A, pp. 20-28

Testing: 40 CFR §63.10005, §63.10006, and §63.10007

Describe: See Part 70 Permit Renewal Application, Appendix A, pp. 8-19

Record Keeping: 40 CFR §63.10032 and §63.10033

Describe: See Part 70 Permit Renewal Application, Appendix A, pp. 29-30

Reporting: 40 CFR §63.10030 and §63.10031

Describe: See Part 70 Permit Renewal Application, Appendix A, pp. 31-40

Frequency of submittal of the compliance demonstration: Semi-Annually

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-2 General Reference: 40 CFR 60.672 & COMAR 26.11.06.02C(1)

Briefly describe the Emission Standard/Limit or Operational Limitation:

40 CFR 60.672 (a) – NSPS Subpart OOO prohibits the discharge into the atmosphere from any transfer point on belt conveyors or from any other affected facility, any stack emissions which exhibit greater than 7% opacity.
40 CFR §60.672(b) – NSPS Subpart OOO prohibits the discharge into the atmosphere from any transfer point on belt conveyors or from any other affected facility, any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (d), (e), and (f) of §60.672.
40 CFR 60 Part 60.672(e) – NSPS Subpart OOO requires any transfer points on a conveyor belt or any other affected facility enclosed in a building to comply with the emissions limits in paragraph (a) and (b) of §60.672, or the building enclosing the affected facilities must comply with emission limits in §60.672(e)(1) and (2).
COMAR 26.11.06.02C(1) prohibits the discharge of visible emissions from any installation other than water in an uncombined form, which is greater than 20% opacity (applies to baghouse discharge). Exception: COMAR 26.11.06.2(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period.
The same monitoring, recordkeeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and COMAR 26.11.06.02C(1).

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall perform a visual observation of the baghouse exhaust and the doors, windows, vents, or other openings in the building to look for visible emissions once a month for 1 minute. The observations shall be made while affected facilities are operating. If emissions in the exhaust gases are visible, the Permittee shall perform the following: inspect all process and/or control equipment that may affect visible emissions; perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases or fugitive emissions from the building openings are eliminated; document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment, and if visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain a record of the results of all visual emission observations.

Reporting: COMAR 26.11.03.06C

The Permittee shall report incidents of visible emissions in accordance with Plant Wide Conditions, “Report of Excess Emissions and Deviations”

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-2 General Reference: 40 CFR 60.672 & PSD Approval #94-01A

Briefly describe the Emission Standard/Limit or Operational Limitation:

40 CFR 60.672 (a) – NSPS Subpart OOO prohibits stack emissions which contain particulate matter in excess of 0.022 gr/scfd (0.05 g/dscm).

PSD Approval #94-01A required the limestone unloading baghouse is to be designed to achieve a PM emissions limit of 0.002 gr/acf.

The same monitoring, recordkeeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and the PSD Permit limit.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request.

Reporting: COMAR 26.11.01.03.06C

The Permittee shall submit maintenance records when requested by the Department.

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-3 and EU-4 General Reference: 40 CFR 60.672 & COMAR 26.11.06.02C(1)

40 CFR §60.672(a) – NSPS Subpart OOO prohibits the discharge into the atmosphere from any transfer point on belt conveyors or from any other affected facility, any stack emissions which exhibit greater than 7 percent opacity [Raymond mill controlled with baghouse].
40 CFR 60 Part 60.672(e) – NSPS Subpart OOO requires any transfer point on a conveyer belt or any other affected facility in an enclosed building to comply with the emissions limits of paragraph (a), and (b) of §60.672 or the building enclosing the affected facility or facilities must comply with the emission limits of §60.672(e)(1) and (2).
COMAR 26.11.06.02C(1) prohibits the discharge of visible emissions from any installation other than water in an uncombined form, which is greater than 20% opacity. [Baghouse exhaust on Raymond mill and conveyor]. Exception- COMAR 26.1106.2C(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period. The same monitoring, recordkeeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and COMAR 26.11.06.02C.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

Raymond Mill/Dryer - The Permittee shall visually inspect the exhaust gases from each baghouse stack when the drying and crushing system is operating to look for visible emissions once a month for 1 minute and shall record the results of each observation. If visible emission are observed, the Permittee shall perform the following: inspect all process and/or control equipment that may affect visible emissions; perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated; document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and if visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain a record of the results of all visual emission observations.

Reporting: COMAR 26.11.03.06C

The Permittee shall report incidents of visible emissions in accordance with Plant Wide Conditions, "Report of Excess Emissions and Deviations"

Frequency of submittal of the compliance demonstration: Semi-annual, and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-3 and EU-4 General Reference: 40 CFR 60.672 & PSD Approval #94-01A

Briefly describe the Emission Standard/Limit or Operational Limitation:

40 CFR §60.672(a) – NSPS Subpart OOO, which prohibits stack emissions which contain particulate matter in excess of 0.022 gr/scfd (0.05 g/dscm).

PSD Approval #94-01A, which required the Raymond mill/dryer system to be designed to meet a particulate emissions (PM₁₀) limit of 0.055 lb/MMBtu heat input.

PSD Approval #94-01A, which required the fabric filter baghouse on the mill/dryer system to be designed to meet a limit of 0.002 gr/acf.

The same monitoring, recordkeeping, and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and the PSD Permit limits.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request.

Reporting: COMAR 26.11.03.06C

The Permittee shall submit maintenance records when requested by the Department.

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-3 and EU-4

General Reference: PSD Approval # 94-01A

Briefly describe the Emission Standard/Limit or Operational Limitation:

PSD Approval #94-01A, which required the Raymond mill/limestone dryers to be designed to meet a sulfur dioxide emissions limit of 0.052 lb/MMBtu of heat input.

PSD Approval #94-01A, which limits the maximum sulfur content of the fuel to 0.05% by weight.

(Note that the SO₂ limit of 0.052 lb/MMBtu is equivalent to 0.05% sulfur content by weight.)

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall obtain fuel supplier certification indicating that the oil complies with the limitation on sulfur content of the fuel oil.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation.

Reporting: COMAR 26.11.03.06C

The Permittee shall submit records of sulfur in fuel certifications to the Department upon request.

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-3 and EU-4

General Reference: PSD Approval # 94-01A, COMAR
26.11.09.08B(1)(c)

Briefly describe the Emission Standard/Limit or Operational Limitation:

PSD Approval #94-01A, which required the Raymond mill and limestone dryers to be designed to achieve a NO_x emissions limit of 0.24 lb/MMBtu of heat input.

NO_x RACT (COMAR 26.11.09.08B(1)(c)) provides an emission standard of 0.25 lb/MMBtu of heat input for gas/oil.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall perform a combustion analysis for each Eclipse dryer at least once each calendar year and optimize combustion based on analysis.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain records of the annual combustion analyses.

Reporting: COMAR 26.11.03.06C

The Permittee shall report the results of combustion analyses to the Department upon request.

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-3 and EU-4

General Reference: PSD Approval # 94-01A

Briefly describe the Emission Standard/Limit or Operational Limitation:

PSD Approval #94-01A, which required the Raymond mill/limestone dryers to be designed to achieve emissions as follows:

- CO: 0.068 lb/MMBtu of heat input
- VOC: 0.002 lb/MMBtu of heat input

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall properly operate and maintain the Raymond mill/limestone dryers, and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain a log of maintenance performed on the Raymond mill/limestone dryer systems that relate to combustion performance.

Reporting: COMAR 26.11.03.06C

The permittee shall submit records of the maintenance performed on the two limestone dryers upon request by the Department.

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-3 and EU-4

General Reference: PSD Approval # 94-01A

Briefly describe the Emission Standard/Limit or Operational Limitation:

Operating Limit

PSD Approval #94-01A limits the combined annual operating hours for both dryers to 8,760 hours on a rolling basis.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: PSD Approval #94-01A

The Permittee shall keep track of the hours of operation for each limestone dryer so as to determine compliance with the limitation of PSD Approval #94-01A.

Testing: None

Record Keeping: PTC No. 001-6-0136A

The Permittee shall keep monthly records which show the daily operating hours of each dryer.

Reporting: COMAR 26.11.03.06C

The Permittee shall submit the hours of operation of the two limestone dryers in the quarterly monitoring report and as an attachment to the annual emissions certification report.

Frequency of submittal of the compliance demonstration: Quarterly, Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-5 General Reference: 40 CFR 60.672 & COMAR 26.11.06.02C(1)

Briefly describe the Emission Standard/Limit or Operational Limitation:

40 CFR §60.672(a) and (f) – NSPS Subpart OOO prohibits stack emissions which exhibit greater than 7 percent opacity from a baghouse that controls emissions from a single enclosed storage bin.
COMAR 26.11.06.02C(1) limits the discharge of visible emissions from any installation other than water in an uncombined form which is greater than 20% opacity. Exception- COMAR 26.1106.2C(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in and 60 minute period.
The monitoring, recordkeeping, and reporting strategy to demonstrate compliance with the NSPS opacity standard will be used for the compliance demonstration of the COMAR opacity standard.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall visually inspect the exhaust gases from each baghouse stack when a silo is being filled to look for visible emissions once a month for 1 minute and shall record the results of each observation. If emissions in the exhaust gases are visible, the Permittee shall perform the following: inspect all process and/or control equipment that may affect visible emissions; perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases or fugitive emissions from the building openings are eliminated; document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and if visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain a record of the results of all visual emission observations.

Reporting: COMAR 26.11.03.06C

The Permittee shall report incidents of visible emissions in accordance with Plant Wide Conditions, "Report of Excess Emissions and Deviations".

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-5 General Reference: PSD Approval #94-01A

Briefly describe the Emission Standard/Limit or Operational Limitation:

PSD Approval #94-01A required the fabric filter baghouse to be designed to achieve a particulate matter emissions limit of 0.003 gr/acf.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request.

Reporting: COMAR 26.11.01.03.06C

The Permittee shall submit maintenance records when requested by the Department.

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-6, EU-7, and EU-8 General Reference: 40 CFR 60.254 & COMAR 26.11.06.02C(1)

Briefly describe the Emission Standard/Limit or Operational Limitation:

40 CFR §60.254(a) – NSPS Subpart Y prohibits stack visible emissions which exhibit greater than 20 percent opacity. COMAR 26.11.06.02C(1) limits the discharge of visible emissions from any installation, other than water in an uncombined form, which is greater than 20% opacity. Exception- COMAR 26.1106.2C(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period. The monitoring, recordkeeping, and reporting strategy to demonstrate compliance with the NSPS opacity standard will be used for the compliance demonstration of the COMAR opacity standard.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall visually inspect the exhaust gases from each baghouse stack when coal is being handled or crushed to look for visible emissions once a month for 1 minute and shall record the results of each observation. If emissions in the exhaust gases are visible, the Permittee shall perform the following: inspect all process and/or control equipment that may affect visible emissions; perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases or fugitive emissions from the building openings are eliminated; document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and if visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain a record of the results of all visual emission observations.

Reporting: COMAR 26.11.03.06C

The Permittee shall report incidents of visible emissions in accordance with Plant Wide Conditions, "Report of Excess Emissions and Deviations".

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-6, EU-7, and EU-8 General Reference: PSD Approval #94-01A

Briefly describe the Emission Standard/Limit or Operational Limitation:

PSD Approval #94-01A, which required the fabric filter baghouse to be designed to achieve a particulate matter emissions limit of 0.003 gr/acf.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request.

Reporting: COMAR 26.11.01.03.06C

The Permittee shall submit maintenance records when requested by the Department.

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-9, EU-10, and EU-11 General Reference: COMAR 26.11.06.02C(1)

Briefly describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.06.02C(1), which limits the discharge of visible emissions from any installation other than water in an uncombined form, which is greater than 20% opacity. (Applies to baghouse exhaust.) Exception- COMAR 26.1106.2C(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

A. Monitoring: COMAR 26.11.03.06C
The Permittee shall visually inspect the exhaust gases from each baghouse stack when a bin/silo is being filled to look for visible emissions once a month for 1 minute and shall record the results of each observation. If emissions in the exhaust gases are visible, the Permittee shall perform the following: inspect all process and/or control equipment that may affect visible emissions; perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases or fugitive emissions from the building openings are eliminated; document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and if visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions.

Testing: None

Record Keeping: COMAR 26.11.03.06C
The Permittee shall maintain a record of the results of all visual emission observations.

Reporting: COMAR 26.11.03.06C
The Permittee shall report incidents of visible emissions in accordance with Plant Wide Conditions, "Report of Excess Emissions and Deviations".

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-9, EU-10, and EU-11 General Reference: PSD Approval #94-01A

Briefly describe the Emission Standard/Limit or Operational Limitation:

PSD Approval #94-01A, which required the fabric filter baghouses to be designed to achieve a particulate emissions limit of 0.003 gr/acf.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request.

Reporting: COMAR 26.11.01.03.06C

The Permittee shall submit maintenance records when requested by the Department.

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-12 General Reference: COMAR 26.11.09.05E

Briefly describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.09.05E(2) (Emissions During Idle Mode): A person may not cause or permit the discharge of emissions from any engine, operating at idle, that is greater than 10 percent opacity.

COMAR 26.11.09.05E(3) (Emissions During Operating Mode): A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, that is greater than 40 percent opacity.

COMAR 26.11.09.05E(4), which provides for the following exceptions:

- (a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
- (b) Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods: (i) Engines that are idled continuously when not in service: 30 minutes; and (ii) All other engines: 15 minutes.
- (c) Sections E(2) and (3) do not apply while maintenance, repair, or testing is being performed by qualified mechanics.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06

The Permittee shall properly operate and maintain the engine and shall maintain an operations manual and preventive maintenance plan.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain a log of maintenance performed on the diesel engine that relates to combustion performance.

Reporting: COMAR 26.11.03.06C

The Permittee shall report incidents of visible emissions in accordance with Plant Wide Conditions, "Report of Excess Emissions and Deviations".

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-12 General Reference: PSD Approval #94-01A

Briefly describe the Emission Standard/Limit or Operational Limitation:

PSD Approval #94-01A, which required the emergency boiler feed water pump engine to be designed to achieve a particulate matter emissions limit of 0.341 lb/MMBtu of heat input.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall properly operate and maintain the engine and shall maintain an operations manual and preventive maintenance plan.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain a log of maintenance performed on the diesel engine that relates to combustion performance.

Reporting: None

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-12 General Reference: PSD Approval #94-01A

Briefly describe the Emission Standard/Limit or Operational Limitation:

PSD Approval #94-01A, which required the emergency boiler feed water pump to be designed to achieve a sulfur dioxide emissions limit of 0.052 lb/MMBtu of heat input.

PSD Approval #94-01A, which limits the maximum sulfur content of the fuel to 0.05% by weight.

(Note that the SO₂ limit of 0.052 lb/MMBtu is equivalent to 0.05% by weight.)

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall obtain fuel suppliers' certification indicating that the oil complies with the limitation on sulfur content of the fuel.

Testing: None

Record Keeping: COMAR 26.11.03.06C

Maintain records of fuel suppliers' certification for 5 years.

Reporting: None

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-12 General Reference: PSD Approval #94-01A, NO_x RACT

Briefly describe the Emission Standard/Limit or Operational Limitation:

PSD Approval #94-01A, which required the emergency boiler feed water pump engine to be designed to achieve a NO_x limit of 3.439 lb/MMBtu.

COMAR 26.11.09.08G, which requires a person who owns or operates fuel burning equipment with a capacity factor of 15 percent or less to:

- (a) Provide certification of the capacity factor of the equipment to the Department in writing;
- (b) For fuel-burning equipment that operates more 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
- (c) Maintain the results of the combustion analysis at the site for at least five years and make these results available to the Department and EPA upon request;
- (d) Require each operator of an installation except combustion turbine, to attend at least once every three years, an operator training program on combustion optimization that is sponsored by the Department, U.S. EPA, or equipment vendors; and
- (e) Maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request.

COMAR 26.11.09.08K(3), which requires the Permittee to maintain annual fuel use records on site for **not less than 3** years and make records available to the Department upon request.)

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall properly operate and maintain the engine, and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain a log of maintenance performed on the diesel engine that relates to combustion performance.

Reporting: None

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-12 General Reference: PSD Approval #94-01A

Briefly describe the Emission Standard/Limit or Operational Limitation:

PSD Approval #94-01A, which required the emergency boiler feed water pump engine to be designed to achieve the following emission limits:

- CO – 0.902 lb/MMBtu of heat input
- VOC – 0.098 lb/MMBtu of heat input

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C

The Permittee shall properly operate and maintain the engine, and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance.

Testing: None

Record Keeping: COMAR 26.11.03.06C

The Permittee shall maintain a log of maintenance performed on the diesel engine that relates to combustion performance.

Reporting: None

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-12 General Reference: PSD Approval #94-01A

Briefly describe the Emission Standard/Limit or Operational Limitation:

PSD Approval #94-01A: The operation of the emergency boiler feed water pump during non-emergency operations is limited to one hour per day and 200 hours per 12 months (rolled monthly).

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: None

Testing: None

Record Keeping: PTC No. 001-4-0080A

Maintain records of the hours of operation of the diesel engine pump for 5 years. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request.

Reporting: None

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-17 and EU-18 General Reference: COMAR 26.11.09.08F & K

Briefly describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.09.08F(1) requires the Permittee or operator of a space heater as defined in regulation .01B this chapter to: (a) Submit to the Department a list of each affected installation on the premises and the type of fuel used in each installation; (b) Develop an operating and maintenance plan to minimize NO_x emissions based on the recommendations of equipment vendors and other information including the source's operating and maintenance experience; (c) Implement the operating and maintenance plans and maintain the plans at the premises for review upon request by the Department; (d) Require installation operators to attend an in-state operators training program once every three years on combustion optimization that is sponsored by the Department, U.S. EPA, or equipment vendors; and (e) Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request. (Note: COMAR 26.11.09.08 states that "for the purpose of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.")
COMAR 26.11.09.08F(2), which requires the Permittee or operator who owns or operates an installation that no longer qualifies as a space heater to inform the Department not later than 60 days after the date when the fuel burning equipment did not qualify and shall meet the applicable fuel burning equipment RACT requirement in this regulation.
COMAR 26.11.09.08K(3), which requires the Permittee to maintain annual fuel use records on site for **not less than 3** years and make records available to the Department upon request.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.09.08F(1)(c)

The Permittee shall develop and implement the operating and maintenance plan and maintain the plan at the premises for review upon request by the Department.

Testing: None

Record Keeping: COMAR 26.11.09.08F(1)(c) & (e), COMAR 26.11.03.06C, and COMAR 26.11.09.08K(3)

The Permittee shall (a) Maintain the operating and maintenance plan at the premises for review by the Department upon request; (b) Maintain records of the quantity of fuel burned each month and calculations of heat input so as to determine whether the units no longer qualify as a "Space Heater"; (c) Maintain records of the training program attendance for each operator at the site; and (d) Maintain annual fuel use records on site for at least five years and make records available to the Department upon request.

Reporting: COMAR 26.11.09.08F(2) and COMAR 26.11.09.08F(1)(e)

The Permittee shall (a) Inform the Department no later than 60 days after the date when the units no longer qualify as a space heater, and shall identify an alternative NO_x RACT requirement under COMAR 26.11.09.08 with which the source will comply; and (b) Submit a list of trained operators and training attendance records to the Department upon request.

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-17 and EU-18

General Reference: COMAR 26.11.09.04

Briefly describe the Emission Standard/Limit or Operational Limitation:

The Permittee shall only burn natural gas in the space heaters unless the Permittee applies for and receives an approval or permit from the Department to burn an alternate fuel.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
- Annual Compliance Certification:
- Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: None

Testing: None

Record Keeping: COMAR 26.11.02.19C(1)(c)
The Permittee shall maintain records of the type of fuel burned.

Reporting: COMAR 26.11.02.19C(2)
Submit records of fuel use as an attachment to the annual emissions certification.

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-19 **General Reference:** 40 CFR 60.254(b)(1) & COMAR 26.11.06.02C(1)

Briefly describe the Emission Standard/Limit or Operational Limitation:

40 CFR 60.254(b)(1) Coal processing and conveying equipment, coal storage system, or coal transfer and loading system and open storage piles “On and after the date on which the performance test is conducted or required

to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008 must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 10 percent opacity or greater.”

COMAR 26.11.06.02C(1) Limits the discharge of visible emissions from any installation or building, other than water in an uncombined form, to no greater than 20% opacity. Exception- COMAR 26.1106.2C(2) - The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:

(a) The visible emissions are not greater than 40 percent opacity; and

(b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period.

Note: The monitoring, record keeping, and reporting strategy to demonstrate compliance with the NSPS opacity standard will be used for the compliance demonstration of the COMAR opacity standard.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C The Permittee shall visually inspect the exhaust gases from each baghouse stack when coal is being handled or crushed for visible emissions once a month for 1 minute and shall record the results of each observation.

If emissions in the exhaust gases are visible, the Permittee shall perform the following:

- (1) Inspect all process and/or control equipment that may affect visible emissions;
- (2) Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated;

- (3) Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and
- (4) If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions.

Testing: 40 CFR §60.255(b) The Permittee shall conduct the performance tests required in §60.8 using the methods identified in §60.257 to demonstrate compliance with the applicable emissions standards in this subpart as specified in paragraph (b) (2) of §60.255.

As an alternative to meeting the requirements in paragraph (b)(2) of §60.255, the Permittee may elect to comply with the requirements in paragraph (f)(1) of §60.255.

Record Keeping: 40 CFR §60.258(a) and COMAR 26.11.03.06C The Permittee shall maintain in a logbook (written or electronic) on-site for at least 5 years and shall be made available to the Department upon request. The logbook shall record the following: (1) The manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer recommendation, if any, shall be noted. (2) The date and time of required periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions. Results from these actions shall be noted. (3) The amount and type of coal processed each calendar month.

Reporting: COMAR 26.11.03.06C The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations."

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-19

General Reference: 40 CFR 60.255(h)

Briefly describe the Emission Standard/Limit or Operational Limitation:

40 CFR 60.255(h) The Permittee, Owner or Operator of each affected coal truck dump operation that commenced construction, reconstruction, or modification after April 28, 2008, must meet the requirements specified in paragraphs (h)(1) through (3) of this section.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: 40 CFR §60.255(h), 40 CFR §60.255(h)(1)(i), 40 CFR §60.255(h)(2) and 40 CFR §60.255(h)(3)

(1) The Permittee shall conduct an initial performance test using Method 9 of Appendix A-4 of this part according to the requirements in paragraphs (h)(1)(i) and (ii).

(i) The Permittee shall conduct opacity readings during the duration of three separate truck dump events. Each truck dump event commences when the truck bed begins to elevate and concludes when the truck bed returns to a horizontal position.

(ii) Compliance with the opacity limit is determined by averaging all 15-second opacity readings made during the duration of three separate truck dump events.

(2) The Permittee shall conduct monthly visual observations of all process and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible.

(3) The Permittee shall conduct a Performance test using Method 9 of Appendix A-4 of this part at least once every 5 calendar years for each affected facility.

Testing: 40 CFR §60.255(b) The Permittee shall conduct the performance tests required in §60.8 using the methods identified in §60.257 to demonstrate compliance with the applicable emissions standards in this subpart as specified in paragraph (b) (2) of §60.255.

As an alternative to meeting the requirements in paragraph (b)(2) of §60.255, the Permittee may elect to comply with the requirements in paragraph (f)(1) of §60.255.

Record Keeping: COMAR 26.11.03.06C and 40 CFR §60.258(a)(2)

The Permittee shall maintain a record of the results of all visual emission observations and corrective actions taken to address exceedance including maintenance performed on each affected facility. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request.

Reporting: COMAR 26.11.03.06C40 CFR§60.258(a)(2) The Permittee shall report incidents of visible emissions in accordance with Plant Wide Conditions, “Report of Excess Emissions and Deviations.”

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-19

General Reference: COMAR 26.11.06.03D

Briefly describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.06.03D The Permittee shall utilize water injection system or other necessary measures as frequently as necessary to prevent fugitive emissions and dust from becoming airborne in accordance with COMAR 26.11.06.03D.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C See Record Keeping requirements.

Testing: COMAR 26.11.03.06C See Monitoring requirements.

Record Keeping: COMAR 26.11.03.06C The Permittee shall maintain a log of the use of water injection system or other measures to prevent fugitive dust from becoming airborne on site for at least 5 years and shall be made available to the Department upon request.

Reporting: COMAR 26.11.03.06C The Permittee shall submit a log of the use of water injection system or other measures to prevent fugitive dust from becoming airborne upon request by the Department.

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Facility-Wide (Fugitives) General Reference: COMAR 26.11.06.03D & PTC #001-3-0127, 6-0136, & 4-0067A

Briefly describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.06.03D – “Particulate Matter from Materials Handling and Construction. A person may not cause or permit any material to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.”

PTC #001-3-0127, 6-0136, & 4-0067A – The Permittee shall assure that no more than 203 trucks/day, comprised of coal, limestone, and CO₂, shall be permitted on-site for delivery.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report: _____
- Annual Compliance Certification: _____
- Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C and PTC #001-3-0127, 6-0136, & 4-0067A

The Permittee shall implement the facility’s written plan that addresses the management program for controlling fugitive dust from storage piles, vehicular traffic at the site, and other sources.

The Permittee shall monitor and count the number of trucks on the site for delivery each day.

Testing: See monitoring requirements

Record Keeping: PTC #01-3-0127, 6-0136, & 4-0067A and COMAR 26.11.03.06C

The Permittee shall maintain on site a written plan that addresses the management program for controlling fugitive dust from storage piles, vehicular traffic at the site, and other unconfined sources.

The Permittee shall maintain a record of the number of coal, limestone, and CO₂ trucks on site for delivery each day.

Reporting: COMAR 26.11.03.06C

The Permittee shall submit the written plan that addresses the management program for controlling fugitive dust from storage piles, vehicular traffic at the site, and other unconfined sources upon request by the Department.

The Permittee shall submit, upon request of the Department, a record of the number of coal, limestone, and CO₂ trucks on site for delivery each day.

Frequency of submittal of the compliance demonstration: Semi-annual and Annual

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SECTION 3C. OBSOLETE, EXTRANEOUS, OR INSIGNIFICANT PERMIT CONDITIONS

List permit to construct conditions which should be considered to be obsolete, extraneous, or environmentally insignificant.

Emissions Unit No.: _____ Permit to Construct No. _____

Emissions Point No.	Date Permit Issued	Condition No.	Brief Description of Condition and Reason for Exclusion
			None

SECTION 3E. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS FOR AN ALTERNATE OPERATING SCENARIO

Scenario No.: Not applicable

Emissions Unit No.: _____ **General Reference:** _____

Briefly describe any applicable Emissions Standard/Limits/Operational Limitations:

Not applicable

Compliance Demonstration – Not applicable

Methods used to demonstrate compliance:

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

Frequency of submittal of the compliance demonstration: ___Not applicable___

SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.:</u> EU-1	2. <u>Emissions Point No.:</u> EP-1
3. <u>Type and Description of Control Equipment:</u>	
One (1) ABB Model 2 x 6SS 12 x 34.5 RG 363 x 24 (288) Baghouse	
4. <u>Pollutants Controlled:</u>	<u>Control Efficiency:</u>
Particulates	99.9%
5. <u>Capture Efficiency:</u> 100%	

SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.:</u> EU-1	2. <u>Emissions Point No.:</u> EP-1
3. <u>Type and Description of Control Equipment:</u>	
Circulating Fluidized Bed Boiler Design	
4. <u>Pollutants Controlled:</u>	<u>Control Efficiency:</u>
NO _x	30 – 40%
5. <u>Capture Efficiency:</u> 100%	

SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.:</u> EU-1	2. <u>Emissions Point No.:</u> EP-1
3. <u>Type and Description of Control Equipment:</u>	
One (1) Selective Non-Catalytic Reduction System	
4. <u>Pollutants Controlled:</u>	<u>Control Efficiency:</u>
NO _x	40%
5. <u>Capture Efficiency:</u> 100%	

SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.:</u> EU-1	2. <u>Emissions Point No.:</u> EP-1
3. <u>Type and Description of Control Equipment:</u>	
Limestone Injection System (limestone injection into a fluidized bed combustion unit)	
4. <u>Pollutants Controlled:</u>	<u>Control Efficiency:</u>
SO ₂	95+%
5. <u>Capture Efficiency:</u> 100%	

SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.:</u> EU-2	2. <u>Emissions Point No.:</u> EP-2
3. <u>Type and Description of Control Equipment:</u>	
One (1) Filtrex Model MP102563161 Baghouse	
4. <u>Pollutants Controlled:</u>	<u>Control Efficiency:</u>
Particulates	99.9%
5. <u>Capture Efficiency:</u> 100%	

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SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.:</u> EU-3 and EU-4	2. <u>Emissions Point No.:</u> EP-3 and EP-4
3. <u>Type and Description of Control Equipment:</u>	
Two (2) Flex-Kleen Model 120-WSWS-100 (III) Baghouses	
4. <u>Pollutants Controlled:</u>	Control Efficiency:
Particulates	99.9%
5. <u>Capture Efficiency:</u> 100%	

SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.:</u> EU-5	2. <u>Emissions Point No.:</u> EP-5
3. <u>Type and Description of Control Equipment:</u>	
One (1) Flex-Kleen Baghouse	
4. <u>Pollutants Controlled:</u>	<u>Control Efficiency:</u>
Particulates	99.9%
5. <u>Capture Efficiency:</u> 100%	

SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.:</u> EU-6	2. <u>Emissions Point No.:</u> EP-6
3. <u>Type and Description of Control Equipment:</u>	
One (1) Airtrol Model 108AWC07H Baghouse	
4. <u>Pollutants Controlled:</u>	<u>Control Efficiency:</u>
Particulates	99.9%
5. <u>Capture Efficiency:</u> 100%	

SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.:</u> EU-7	2. <u>Emissions Point No.:</u> EP-7
3. <u>Type and Description of Control Equipment:</u>	
One (1) Airtrol Model 63AWC07H Baghouse	
4. <u>Pollutants Controlled:</u>	<u>Control Efficiency:</u>
Particulates	99.9%
5. <u>Capture Efficiency:</u> 100%	

SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.:</u> EU-8	2. <u>Emissions Point No.:</u> EP-8
3. <u>Type and Description of Control Equipment:</u>	
One (1) Airtrol Model CA32AS Baghouse	
4. <u>Pollutants Controlled:</u>	<u>Control Efficiency:</u>
Particulates	99.9%
5. <u>Capture Efficiency:</u> 100%	

SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.:</u> EU-9	2. <u>Emissions Point No.:</u> EP-9
3. <u>Type and Description of Control Equipment:</u>	
One (1) IAC Model 55670-212 Baghouse	
4. <u>Pollutants Controlled:</u>	Control Efficiency:
Particulates	99.9%
5. <u>Capture Efficiency:</u> 100%	

SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.:</u> EU-10	2. <u>Emissions Point No.:</u> EP-10
3. <u>Type and Description of Control Equipment:</u>	
One (1) IAC Model 55670-212 Baghouse	
4. <u>Pollutants Controlled:</u>	<u>Control Efficiency:</u>
Particulates	99.9%
5. <u>Capture Efficiency:</u> 100%	

SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.:</u> EU-11	2. <u>Emissions Point No.:</u> EP-11
3. <u>Type and Description of Control Equipment:</u>	
One (1) IAC Model 55670-217 Baghouse	
4. <u>Pollutants Controlled:</u>	<u>Control Efficiency:</u>
Particulates	99.9%
5. <u>Capture Efficiency:</u> 100%	

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SECTION 5. SUMMARY SHEET OF POTENTIAL EMISSIONS

List all applicable pollutants in tons per year (tpy) pertaining to this facility. The Emissions Unit No. should be consistent with numbers used in Section 3. Attach a copy of all calculations.

Pollutant	Not applicable				
CAS Number					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Fugitive Emissions					
Total					

SECTION 6. EXPLANATION OF PROPOSED EXEMPTIONS FROM OTHERWISE APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Describe and cite the applicable requirements to be exempted. Complete this Section only if the facility is claiming exemptions from or the non-applicability of any federally enforceable requirements.

1. Applicable Requirement:	Not applicable
2. Brief Description:	
3. Reasons for Proposed Exemption or Justification of Non-applicability:	

SECTION 7. COMPLIANCE SCHEDULE FOR NONCOMPLYING EMISSIONS UNITS

1. Emissions Unit # Not applicable	Anticipated Compliance Date
Applicable Federally Enforceable Requirement being Violated:	

2. Description of Plan to Achieve Compliance: Not applicable

Certified Progress Reports for sources in noncompliance shall be submitted at least quarterly to the Department.

STATE-ONLY ENFORCEABLE REQUIREMENTS

Facility Information:

Name of Facility: AES Warrior Run	County: Allegany
Premises Number: 0203	
Street Address: 11600 Mexico Farms Rd, S.E.	
24-hour Emergency Telephone Number for Air Pollution Matters: (301) 777-0055, x1130	
<p>Type of Equipment (List Significant Units):</p> <ul style="list-style-type: none"> (1) EU-1 – Fluidized Bed Boiler (2) EU-2 – Limestone Truck Unloading Operation (3) EU-3 & EU-4 – Two Limestone Crushing and Drying Systems (4) EU-5 – Limestone Storage Silo (5) EU-6 – Coal Truck Unloading Operation (6) EU-7 – Coal Crushing and Reclaim System (7) EU-8 – Coal Storage System (8) EU-9 – Bed Ash Day Bin (9) EU-10 – Bed Ash Storage Silo (10) EU-11 – Fly Ash Storage Silo (11) EU-12 – Boiler Feedwater Pump (12) EU-17 & EU-18 – Space Heaters (13) EU-19 – Fuel Blending Station 	

CITATION TO AND DESCRIPTION OF APPLICABLE STATE ONLY ENFORCEABLE REQUIREMENTS

Registration No.: Plant-wide

Emissions Unit No.: Plant-wide

General Reference: COMAR 26.11.06.08

Briefly describe the requirement and the emissions limit (if applicable):

An installation or premises may not be operated or maintained in such a manner that nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution.

Methods used to demonstrate compliance:

The plant will be operated and maintained to minimize the creation of nuisances or air pollution.
Corrective actions will be taken for any nuisances created.

CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS

Registration No.: Plant-wide

Emissions Unit No.: Plant-wide

General Reference: COMAR 26.11.06.09

Briefly describe the requirement and the emissions limit (if applicable):

A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created.

Methods used to demonstrate compliance:

The plant will be operated and maintained to minimize the potential for discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created. Corrective actions will be taken for any nuisances created.

CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS

Registration No.: Plant-wide

Emissions Unit No.: Plant-wide

General Reference: COMAR 26.11.15.05

Briefly describe the requirement and the emissions limit (if applicable):

Requires the Permittee to implement "Best Available Control Technology for Toxics" (T-BACT) to control emissions of toxic air pollutants. (Note: This requirement does not apply to the boiler, emergency boiler feedwater pump engine, or space heaters because they are fuel burning equipment as defined in COMAR 26.11.01.01)

Methods used to demonstrate compliance:

The plant will implement T-BACT to control emissions of toxic air pollutants, as applicable.

CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS

Registration No.: Plant-wide

Emissions Unit No.: Plant-wide

General Reference: COMAR 26.11.15.06

Briefly describe the requirement and the emissions limit (if applicable):

Prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health. (Note: This requirement does not apply to the boiler, emergency boiler feedwater pump engine, or space heaters because they are fuel burning equipment as defined in COMAR 26.11.01.01.)

Methods used to demonstrate compliance:

The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

- (a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or
- (b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS

Registration No.: 001-3-0127

Emissions Unit No.: EU-1

General Reference: COMAR 26.11.01.10D(1)(c), COMAR 26.11.09.05A(4), and COMAR 26.11.31

Briefly describe the requirement and the emissions limit (if applicable):

Pertains to the collection and validation of COM data.

Methods used to demonstrate compliance:

The plant will maintain records that demonstrate compliance with the applicable requirements.

CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS

Registration No.: [001-3-0127](#)

Emissions Unit No.: [EU-1](#)

General Reference: [COMAR 26.11.38.03D\(2\)](#)

Briefly describe the requirement and the emissions limit (if applicable):

[The owner or operator of an affected electric generating unit equipped with a fluidized bed combustor shall not exceed a NO_x 24-hour block average emission rate of 0.10 lb/MMBtu.](#)

Methods used to demonstrate compliance:

[Demonstrate compliance with the NO_x emission rate limitation in COMAR 26.11.38.03D\(2\) using a continuous emission monitoring system that is installed, operated, and certified in accordance with 40 CFR Part 75 \[COMAR 26.11.38.05B\(1\)\].](#)

[Submit monthly reports to the Department detailing the status of compliance with the NO_x emission rate limitation not later than 30 days following the end of each calendar month during the ozone season \[COMAR 26.11.38.06A\].](#)

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III. Check-off List of Emissions Units and Activities Exempt from the Part 70 Permit Application

Insignificant Activities

Place a check mark beside each type of emissions unit or activity that is located at the facility. Where noted, please indicate the number of that type of emissions unit or activity located at the facility.

- (1) No. ___ Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;
- (2) No. ___ Fuel-burning equipment using solid fuel and having a heat input of less than 350,000 Btu (0.37 gigajoule) per hour;
- (3) No. ___ Stationary internal combustion engines with less than 500 brake horsepower (373 kilowatts) of power output
- (4) Space heaters utilizing direct heat transfer and used solely for comfort heat;
- (5) Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;
- (6) No. ___ Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;
- (7) ___ Commercial bakery ovens with a rated heat input capacity of less than 2,000,000 Btu per hour;
- (8) ___ Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity, or any combination of these;
- (9) ___ Confection cookers where the products are edible and intended for human consumption;
- (10) ___ Die casting machines;
- (11) ___ Photographic process equipment used to reproduce an image upon sensitized material through the use of radiant energy;
- (12) Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;

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- (13) Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;
- (14) Equipment for washing or drying products fabricated from metal or glass, provided that no VOC is used in the process and that no oil or solid fuel is burned;
- (15) Containers, reservoirs, or tanks used exclusively for electrolytic plating work, or electrolytic polishing, or electrolytic stripping of brass, bronze, cadmium, copper, iron, lead, nickel, tin, zinc, and precious metals;
- (16) Containers, reservoirs, or tanks used exclusively for:
- (a) Dipping operations for applying coatings of natural or synthetic resins that contain no VOC;
 - (b) Dipping operations for coating objects with oils, waxes, or greases, and where no VOC is used;
 - (c) Storage of butane, propane, or liquefied petroleum, or natural gas;
 - (d) No. Storage of lubricating oils;
 - (e) No. Unheated storage of VOC with an initial boiling point of 300 °F
 - (f) No. 4 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel,
 - (g) No. 1 Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;
 - (h) No. 1 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;
- (17) Gaseous fuel-fired or electrically heated furnaces for heat treating glass or metals, the use of which does not involve molten materials;
- (18) Crucible furnaces, pot furnaces, or induction furnaces, with individual capacities of 1,000 pounds (454 kilograms) or less each, in which no sweating or distilling is conducted, or any fluxing is conducted using chloride, fluoride, or ammonium compounds, and from which only the following metals are poured or in which only the following metals are held in a molten state:

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- (a) ___ Aluminum or any alloy containing over 50 percent aluminum, if no gaseous chloride compounds, chlorine, aluminum chloride, or aluminum fluoride is used;
- (b) ___ Magnesium or any alloy containing over 50 percent magnesium;
- (c) ___ Lead or any alloy containing over 50 percent lead;
- (d) ___ Tin or any alloy containing over 50 percent tin;
- (e) ___ Zinc or any alloy containing over 50 percent zinc;
- (f) ___ Copper;
- (g) ___ Precious metals;
- (19) Charbroilers and pit barbecues as defined in COMAR 26.11.18.01 with a total cooking area of 5 square feet (0.46 square meter) or less;
- (20) ___ First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;
- (21) Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;
- (22) ___ Potable water treatment equipment, not including air stripping equipment;
- (23) ___ Firing and testing of military weapons and explosives;
- (24) ___ Emissions resulting from the use of explosives for blasting at quarrying operations and from the required disposal of boxes used to ship the explosive;
- (25) Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;
- (26) ___ Grain, metal, or mineral extrusion presses;
- (27) ___ Breweries with an annual beer production less than 60,000 barrels;
- (28) ___ Natural draft hoods or natural draft ventilators that exhaust air pollutants into the ambient air from manufacturing/industrial or commercial processes;

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(29) Laboratory fume hoods and vents;

(30) No. Sheet-fed letter or lithographic printing press(es) with a cylinder width of less than 18 inches;

For the following, attach additional pages as necessary:

(31) any other emissions unit, not listed in this section, with a potential to emit less than the “de minimus” levels listed in COMAR 26.11.02.10X (list and describe units):

No. 1 Ucarsol Storage Tank (10,000 gal)

No. 1 Wastewater Storage Tank from CO₂ Production (27,000 gal)

No. 1 Hydrochloric Acid Storage Tank (6,700 gal)

No. 1 Sulfuric Acid Storage Tank (6,500 gal)

No. 1 Anhydrous Ammonia Storage Tank (12,000 gal)

(32) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. 1 Anhydrous Ammonia Storage Tank

No. 2 Sodium Hydroxide Storage Tanks

APPENDIX A
MATS RULE APPLICABLE REQUIREMENTS

Applicable Standards/Limits

Control of HAPs Emissions 40 CFR Part 63, Subpart UUUUU – National Emissions Standards for Hazardous Air Pollutants: Coal and Oil-Fired Electric Utility Steam Generating Units.

§63.9984 When do I have to comply with this subpart?

“(b) If you have an existing EGU, you must comply with this subpart no later than April 16, 2015.” – **No Longer Applicable**

“(c) You must meet the notification requirements in §63.10030 according to the schedule in §63.10030 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.”

“(f) You must demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than 180 days after the applicable date in paragraph (a), (b), (c), (d), or (e) of this section.” – **No Longer Applicable**

§63.9991 What emission limitations, work practice standards, and operating limits must I meet?

“(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section. You must meet these requirements at all times.

(1) You must meet each emission limit and work practice standard in **Table 1 through 3** to this subpart that applies to your EGU, for each EGU at your source, except as provided under §63.10009.”

“(b) As provided in §63.6(g), the Administrator may approve use of an alternative to the work practice standards in this section.”

“(c) You may use the alternate SO₂ limit in Tables 1 and 2 to this subpart only if your EGU:

- (1) Has a system using wet or dry flue gas desulfurization technology and SO₂ continuous emissions monitoring system (CEMS) installed on the ~~unit~~EGU; and
- (2) At all times, you operate the wet or dry flue gas desulfurization technology **and the SO₂ CEMS** installed on the ~~unit~~EGU consistent with §63.10000(b). **Note this includes limestone injection into a fluidized bed combustion unit.**”

Note: **Table 1-** Emission Limits for New or Reconstructed EGUs –**Not Applicable**

Table 2 - Emission Limits for Existing EGUs (Applicable Sections)

If your EGU is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 to this Subpart . . .
1. Coal-fired unit not low rank virgin coal	a. Filterable particulate matter (PM)	3.0E-2 lb/MMBtu or 3.0E-1 lb/MWh. ²	Collect a minimum of 1 dscm per run.
	Sulfur dioxide (SO ₂) ⁴	2.0E-1 lb/MMBtu or 1.5E0 lb/MWh.	SO ₂ CEMS.
	c. Mercury (Hg)	1.2E0 lb/TBtu or 1.3E-2 lb/GWh	LEE Testing for 30 days with a sampling period consistent with that given in Section 5.2.1 of Appendix A to this subpart 10 days maximum per Method 30B at Appendix A-8 to part 60 of this chapter run or Hg CEMS or sorbent trap monitoring system only.

¹ For LEE emissions testing for total PM, total HAP metals, individual HAP metals, HCl, and HF, the required minimum sampling volume must be increased nominally by a factor of two.

² Gross **electric** output.

³ Incorporated by reference, see §63.14.

⁴ You may not use the alternate SO₂ limit if your EGU does not have some form of FGD system and SO₂ CEMS installed.

Table 3 to Subpart UUUUU of Part 63—Work Practice Standards

If your EGU is...	You must meet the following...
1. An existing EGU	Conduct a tune-up of the EGU burner and combustion controls at least each 36 calendar months, or each 48 calendar months if neural network combustion optimization software is employed, as specified in §63.10021(e).
3. A coal-fired , liquid oil-fired (excluding limited use liquid oil-fired subcategory units), or solid oil-derived fuel-fired EGU during startup	a. You have the option of complying using either of the following work practice standards.

If your EGU is...	You must meet the following...
<p>Note: AES selected option (1) of startup definition AES is not required to have CMS</p>	<p>(1) If you choose to comply using paragraph (1) of the definition of “startup” in §63.10042, you must operate all CMS during startup. Startup means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on site use). For startup of a unit, you must use clean fuels as defined in §63.10042 for ignition. Once you convert to firing coal, residual oil, or solid oil-derived fuel, you must engage all of the applicable control technologies except dry scrubber and SCR. You must start your dry scrubber and SCR systems, if present, appropriately to comply with relevant standards applicable during normal operation. You must comply with all applicable emissions limits at all times except for periods that meet the applicable definitions of startup and shutdown in this subpart. You must keep records during startup periods. You must provide reports concerning activities and startup periods, as specified in §63.10011(g) and §63.10021(h) and (i). Not Applicable</p>
	<p>(2) If you choose to comply using paragraph (2) of the definition of “startup” in §63.10042, you must operate all CMS during startup. You must also collect appropriate data, and you must calculate the pollutant emission rate for each hour of startup. -Not Applicable</p>
	<p>For startup of an EGU, you must use one or a combination of the clean fuels defined in §63.10042 to the maximum extent possible, taking into account considerations such as boiler or control device integrity, throughout the startup period. You must have sufficient clean fuel capacity to engage and operate your PM control device within one hour of adding coal, residual oil, or solid oil-derived fuel to the unit. You must meet the startup period work practice requirements as identified in §63.10020(e).</p>
	<p>Once you start firing coal, residual oil, or solid oil-derived fuel, you must vent emissions to the main stack(s). You must comply with the</p>

If your EGU is...	You must meet the following...
	applicable emission limits within 4 hours of start of electricity generation beginning with the hour after startup ends . You must engage and operate your particulate matter control(s) within 1 hour of first firing of coal, residual oil, or solid oil-derived fuel.
	You must start all other applicable control devices as expeditiously as possible, considering safety and manufacturer/supplier recommendations, but, in any case, when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than this Subpart that require operation of the control devices.
	d. You must collect monitoring data during startup periods, as specified in §63.10020(a) and (e). You must keep records during startup periods, as provided in §§63.10032 and 63.10021(h). Any fraction of an hour in which startup occurs constitutes a full hour of startup. You must provide reports concerning activities and startup periods, as specified in §§63.10011(g), 63.10021(i), and 63.10031.
<p>4. A coal-fired, liquid oil-fired (excluding limited-use liquid oil-fired subcategory units), or solid oil-derived fuel-fired EGU during shutdown</p> <p>Note: AES is not required to have a CMS</p>	You must operate all CMS during shutdown. You must also collect appropriate data, and you must calculate the pollutant emission rate for each hour of shutdown for those pollutants for which a CMS is used . While firing coal, residual oil, or solid oil-derived fuel during shutdown, you must vent emissions to the main stack(s) and operate all applicable control devices and continue to operate those control devices after the cessation of coal, residual oil, or solid oil-derived fuel being fed into the EGU and for as long as possible thereafter considering operational and safety concerns. In any case, you must operate your controls when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than this Subpart and that require operation of the control devices.
	If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel must be one or a combination of the clean fuels defined in §63.10042 and must be used to the

If your EGU is...	You must meet the following...
	maximum extent possible, taking into account considerations such as not compromising boiler or control device integrity.
	You must comply with all applicable emission limits at all times except during startup periods and shutdown periods at which time you must meet this work practice. You must collect monitoring data during shutdown periods, as specified in §63.10020(a). You must keep records during shutdown periods, as provided in §§63.10032 and 63.10021(h). Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown. You must provide reports concerning activities and shutdown periods, as specified in §§63.10011(g), 63.10021(i), and 63.10031.

§63.10000 What are my general requirements for complying with this subpart?

“(a) You must be in compliance with the emission limits and operating limits in this subpart. These limits apply to you at all times except during periods of startup and shutdown; however, for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs, you are required to meet the work practice requirements, **items 3 and 4**, in Table 3 to this subpart during periods of startup or shutdown.”

“(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the EPA Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.”

“(c)(1) For coal-fired units, IGCC units, and solid oil-derived fuel-fired units, initial performance testing is required for all pollutants, to demonstrate compliance with the applicable emission limits.”

(i) For a coal-fired or solid oil-derived fuel-fired EGU or IGCC EGU, you may conduct the initial performance testing in accordance with §63.10005(h), to determine whether the unit qualifies as a low emitting EGU (LEE) for one or more applicable emissions limits, ~~with two exceptions: except as otherwise provided in paragraphs (c)(1)(i)(A) and (B) of this section:~~

(A) ~~Except as provided in paragraph (c)(1)(i)(C) of this section, you may not pursue the LEE option if your coal-fired, IGCC, or solid oil-derived fuel-fired EGU is equipped with a main stack and a bypass stack or bypass duct configuration that allows the effluent to bypass any pollutant control device. an acid gas scrubber and has a main stack and bypass stack exhaust configuration,~~ **(Not Applicable)** and

(B) You may not pursue the LEE option for Hg if your coal-fired, solid oil-derived fuel-fired EGU or IGCC EGU is new.” **(Not Applicable)**

(ii) For a qualifying LEE for Hg emissions limits, you must conduct a 30-day performance test using Method 30B at least once every 12 calendar months to demonstrate continued LEE status.

(iii) For a qualifying LEE of any other applicable emissions limits, you must conduct a performance test at least once every 36 calendar months to demonstrate continued LEE status.”

“(v) If your coal-fired or solid oil-derived fuel-fired EGU does not qualify as a LEE for hydrogen chloride (HCl), you may demonstrate initial and continuous compliance through use of an HCl CEMS, installed and operated in accordance with Appendix B to this subpart. As an alternative to HCl CEMS, you may demonstrate initial and continuous compliance by conducting an initial and periodic quarterly performance stack test for HCl. **If your EGU uses wet or dry flue gas desulfurization technology (this includes limestone injection into a fluidized bed combustion unit), you may apply a second alternative to HCl CEMS by installing and operating a sulfur dioxide (SO₂) CEMS installed and operated in accordance with part 75 of this chapter to demonstrate compliance with the applicable SO₂ emissions limit.**”

“(vi) If your coal-fired or solid oil-derived fuel-fired EGU does not qualify as a LEE for Hg, you must demonstrate initial and continuous compliance through use of a Hg CEMS or a sorbent trap monitoring system, in accordance with appendix A to this subpart.” **Note: AES will be an LEE and plans to use sorbent trap monitoring.**

(A) You may choose to use separate sorbent trap monitoring systems to comply with this subpart: One sorbent trap monitoring system to demonstrate compliance with the numeric mercury emissions limit during periods other than startup or shutdown and the other sorbent trap monitoring system to report average mercury concentration during startup periods or shutdown periods.

(B) You may choose to use one sorbent trap monitoring system to demonstrate compliance with the mercury emissions limit at all times (including startup periods and shutdown periods) and to report average mercury concentration. You must follow the startup or shutdown requirements that follow and as given in Table 3 to this subpart for each coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGU.”

“(e) As part of your demonstration of continuous compliance, you must perform periodic tune-ups of your EGU(s), according to §63.10021(e).”

“(f) **Except as provided under paragraph (n) of this section, you** are subject to the requirements of this subpart for at least 6 months following the last date you met the definition of an EGU subject to this subpart (e.g., 6 months after a cogeneration unit provided more than one third of its potential electrical output capacity and more than 25 megawatts electrical output to any power distribution system for sale). You may opt to remain subject to the provisions of this subpart beyond 6 months after the last date you met the definition of an EGU subject to this subpart, unless you are a solid waste incineration unit subject to standards under CAA section 129 (e.g., 40 CFR Part 60, Subpart CCCC (New Source Performance Standards (NSPS) for Commercial and Industrial Solid Waste Incineration Units, or Subpart DDDD (Emissions Guidelines (EG) for Existing Commercial and Industrial Solid Waste Incineration Units). Notwithstanding the provisions of this subpart, an EGU that starts combusting solid waste is immediately subject to standards under CAA section 129 and the EGU remains subject to those standards until the EGU no longer meets the definition of a solid waste incineration unit consistent with the provisions of the applicable CAA section 129 standards.”

“(g) Except as provided under paragraph (n) of this section, if you no longer meet the definition of an EGU subject to this subpart you must be in compliance with any newly applicable standards on the date you are no longer subject to this subpart. The date you are no longer subject to this subpart is a date selected by you, that must be at least 6 months from the date that you last met the definition of an EGU subject to this subpart or the date you begin combusting solid waste, consistent with §63.9983(d). Your source must remain in compliance with this subpart until the date you select to cease complying with this subpart or the date you begin combusting solid waste, whichever is earlier.”

“(j) All air pollution control equipment necessary for compliance with any newly applicable emissions limits which apply as a result of the cessation or commencement or recommencement of operations that cause your EGU to meet the definition of an EGU subject to this subpart must be installed and operational as of the date your source ceases to be or becomes subject to this subpart.”

“(k) All monitoring systems necessary for compliance with any newly applicable monitoring requirements which apply as a result of the cessation or commencement or recommencement of operations that cause your EGU to meet the definition of an EGU subject to this subpart must be installed and operational as of the date your source ceases to be or becomes subject to this subpart. All calibration and drift checks must be performed as of the date your source ceases to be or becomes subject to this subpart. You must also comply with provisions of §§63.10010, 63.10020, and 63.10021 of this subpart. Relative accuracy tests must be performed as of the performance test deadline for PM CEMS, if applicable. Relative accuracy testing for other CEMS need not be repeated if that testing was previously performed consistent with CAA section 112 monitoring requirements or monitoring requirements under this subpart.”

Testing Requirements:

§63.10005 What are my initial compliance requirements and by what date must I conduct them?

“(a) *General requirements.* For each affected EGUs, the Permittee must demonstrate initial compliance with each applicable emissions limit in Table 2 of this subpart through performance testing. Where two emissions limits are specified for a particular pollutant (e.g., a heat input-based limit in lb/MMBtu and a ~~gross an-electrical~~ output-based limit in lb/MWh), you may demonstrate compliance with either emission limit. For a particular compliance demonstration, you may be required to conduct one or more of the following activities in conjunction with performance testing: collection of ~~hourly electrical load~~ data, e.g., ~~hourly gross output data~~ (megawatts); establishment of operating limits according to §63.10011 and Tables 4 and 7 to this subpart; and CMS performance evaluations. In all cases, you must demonstrate initial compliance no later than the ~~applicable~~ date in paragraph (f) of this section for tune-up work practices for existing EGUs; ~~the date that compliance must be demonstrated, and as given in §63.9984 for other requirements for existing EGUs; and in paragraph (g) of this section for all requirements for new EGUs.~~”

(1) To demonstrate initial compliance with an applicable emissions limit in Table 2 to this subpart using stack testing, the initial performance test generally consists of three runs at specified process operating conditions using approved methods. If you are required to establish operating limits (see paragraph (d) of this section and Table 4 to this subpart), you must collect all applicable parametric data during the performance test period. Also, if you choose to comply with an electrical output-based emission limit, you must collect hourly electrical load data during the test period.

(2) To demonstrate initial compliance using either a CMS that measures HAP concentrations directly (i.e., an Hg, HCl, or HF CEMS, or a sorbent trap monitoring system) or an SO₂ or PM CEMS, the initial performance test consists of 30- ~~(or, for certain coal-fired existing EGUS that use if emissions averaging for Hg, is used 90-)~~ boiler operating days. ~~of data collected by the initial compliance demonstration date specified in § 63.9984 with the certified monitoring system.~~ If the CMS is certified prior to the compliance date (or, if applicable, the approved extended compliance date), the test shall begin with the first operating day on or after that date, except as otherwise provided in paragraph (b) of this section. If the CMS is not certified prior to the compliance date, the test shall begin with the first operating day after certification testing is successfully completed. In all cases, the initial 30- or 90- operating day averaging period must be completed on or before the date that compliance must be demonstrated (i.e., 180 days after the applicable compliance date).

(i) ~~The 30-boiler operating~~ The CMS performance test must demonstrate compliance with the applicable Hg, HCl, HF, PM, or SO₂ emissions limit in Table 2 to this subpart.

(ii) You must collect hourly data from auxiliary monitoring systems (i.e., stack gas flow rate, CO₂, O₂, or moisture, as applicable) during the performance test period, in order to convert the pollutant concentrations to units of standard. If you choose to comply with ~~an electrical~~ a gross output-based emission limit, you must also collect hourly ~~electrical load~~ gross output data during the performance test period.”

“(b) *Performance testing requirements.* If you choose to use performance testing to demonstrate initial compliance with the applicable emissions limits in Table 2 to this subpart for your EGUs, you must conduct the tests according to § 63.10007 and Table 5 to this subpart **See Table 5 at end of this section.**

For the purposes of the initial compliance demonstration, you may use test data and results from a performance test conducted prior to the date on which compliance is required as specified in §63.9984, provided that the following conditions are fully met:

- (1) For a performance test based on stack test data, the test was conducted no more than 12 calendar months prior to the date on which compliance is required as specified in § 63.9984;
- (2) For a performance test based on data from a certified CEMS or sorbent trap monitoring system, the test consists of all valid data CMS data recorded in the 30 boiler operating days immediately preceding that date;
- (3) The performance test was conducted in accordance with all applicable requirements in § 63.10007 and Table 5 to this subpart;
- (4) A record of all parameters needed to convert pollutant concentrations to units of the emission standard (e.g. stack flow rate, diluent gas concentrations, hourly ~~electrical loads~~gross output) is available for the entire performance test period; and
- (5) For each performance test based on stack test data, you certify, and keep documentation demonstrating, that the EGU configuration, control devices, and fuel(s) have remained consistent with conditions since the prior performance test was conducted.
- (6) For performance stack test data that are collected prior to the date that compliance must be demonstrated and are used to demonstrate initial compliance with applicable emissions limits, the interval for subsequent stack tests begins on the date that compliance must be demonstrated” – **No Longer Applicable**

“(d) *CMS requirements.* If, for a particular emission or operating limit, you are required to (or elect to) demonstrate initial compliance using a continuous monitoring system, the CMS must pass a performance evaluation prior to the initial compliance demonstration. If a CMS has been previously certified under another state or federal program and is continuing to meet the on-going quality-assurance (QA) requirements of that program, then, provided that the certification and QA provisions of that program meet the applicable requirements of §§63.10010(b) through (h), an additional performance evaluation of the CMS is not required under this subpart.

- (1) For an affected coal-fired, solid oil-derived fuel-fired, or liquid oil-fired EGU, you may demonstrate initial compliance with the applicable **SO₂**, HCl, or HF emissions limit in Table 1 or 2 to this subpart through use of an **SO₂**, HCl, or HF CEMS installed and operated in accordance with part 75 of this chapter or appendix B to this subpart, as applicable. You may also demonstrate compliance with a filterable PM emission limit in Table 1 or 2 to this subpart through use of a PM CEMS installed, certified, and operated in accordance with §63.10010(i). Initial compliance is achieved if the arithmetic average of 30-boiler operating days of quality-assured CEMS data, expressed in units of the standard (see §63.10007(e)), meets the applicable SO₂, PM, HCl, or HF emissions limit in Table 1 or 2 to this subpart. Use Equation 19-19 of Method 19 in appendix A-7 to part 60 of this chapter to calculate the 30-boiler operating day average emissions rate. (NOTE: For

this calculation, the term E_{hj} in Equation 19-19 must be in the same units of measure as the applicable HCl or HF emission limit in Table 1 or 2 to this subpart).”

“(3) For affected EGUs that are either required to or elect to demonstrate initial compliance with the applicable Hg emission limit in Table 1 or 2 of this subpart using Hg CEMS or sorbent trap monitoring systems, initial compliance must be demonstrated no later than the applicable date specified in §63.9984(f) for existing EGUs and in paragraph (g) of this section for new EGUs. Initial compliance is achieved if the arithmetic average of 30- (or 90-) boiler operating days of quality-assured CEMS (or sorbent trap monitoring system) data, expressed in units of the standard (see section 6.2 of appendix A to this subpart), meets the applicable Hg emission limit in Table 1 or 2 to this subpart.”

“(e) *Tune-ups*. All affected EGUs are subject to the work practice standards in Table 3 of this subpart. As part of your initial compliance demonstration, you must conduct a performance tune-up of your EGU according to § 63.10021(e).”

~~“(f) For existing affected sources a tune-up may occur prior to April 16, 2012, so that existing sources without neural networks have up to 42 calendar months (3 years from promulgation plus 180 days) or, in the case of units employing neural network combustion controls, up to 54 calendar months (48 months from promulgation plus 180 days) after the date that is specified for your source in § 63.9984 and according to the applicable provisions in § 63.7(a)(2) as cited in Table 9 to this subpart to demonstrate compliance with this requirement. If a tune-up occurs prior to such date, the source must maintain adequate records to show that the tune-up met the requirements of this standard.”~~

~~“(f) For an existing EGU without a neural network, a tune-up, following the procedures in §63.10021(e), must occur within 6 months (180 days) after April 16, 2015. For an existing EGU with a neural network, a tune-up must occur within 18 months (545 days) after April 16, 2016. If a tune-up occurs prior to April 16, 2015, you must keep records showing that the tune-up met all rule requirements.”~~

“(h) **Low emitting EGU - § 63.10005(h)**. The provisions of this paragraph (h) apply to all pollutants with emissions limits from existing EGUs. You may **not** pursue this compliance option ~~if your existing EGU is equipped with an acid gas scrubber and has a main stack and bypass stack exhaust configuration unless prohibited pursuant to §63.10000(c)(1)(i).~~

(1) An EGU may qualify for low emitting EGU (LEE) status for Hg, HCl, HF, filterable PM, total non-Hg HAP metals, or individual non-Hg HAP metals if you collect performance test data that meet the requirements of this paragraph (h), and if those data demonstrate:

(i) For all pollutants except Hg, performance test emissions results less than 50 percent of the applicable emissions limits in Table 2 to this subpart for all required testing for 3 consecutive years; or

(ii) For Hg emissions from an existing EGU, either:

(A) Average emissions less than 10 percent of the applicable Hg emissions limit in Table 2 to this subpart (expressed either in units of lb/TBtu or lb/GWh); or

(B) Potential Hg mass emissions of 29.0 or fewer pounds per year and compliance with the applicable Hg emission limit in Table 2 to this subpart (expressed either in units of lb/TBtu or lb/GWh).

(2) For all pollutants except Hg, you must conduct all required performance tests described in § 63.10007 to demonstrate that a unit qualifies for LEE status.”

(i) When conducting emissions testing to demonstrate LEE status, you must increase the minimum sample volume specified in Table 2 nominally by a factor of two.

(ii) Follow the instructions in § 63.10007(e) and Table 5 to this subpart to convert the test data to the units of the applicable standard.

(23) For Hg, you must conduct a 30- (or 90-) boiler operating day performance test using Method 30B in appendix A–8 to part 60 of this chapter to determine whether a unit qualifies for LEE status. Locate the Method 30B sampling probe tip at a point within the 10 percent of the duct area centered about the duct’s centroid ~~at area of the duct~~ at a location that meets Method 1 in appendix A–1 to part 60 of this chapter and conduct at least three nominally equal length test runs over the 30- (or 90-) boiler operating day test period. You may use a pair of sorbent traps to sample the stack gas for a period consistent with that given in section 5.2.1 of appendix A to this subpart. Collect Hg emissions data continuously over the entire test period (except when changing sorbent traps or performing required reference method QA procedures), ~~under all process operating conditions. You may use a pair of sorbent traps to sample the stack gas for no more than 10 days. As an alternative to constant rate sampling per Method 30B, you may use proportional sampling per section 8.2.2 of Performance Specification 12 B in appendix B to part 60 of this chapter.~~

(i) Depending on whether you intend to assess LEE status for Hg in terms of the lb/TBtu or lb/GWh emission limit in Table 2 to this subpart or in terms of the annual Hg mass emissions limit of 29.0 lb/year, you will have to collect some or all of the following data during the 30-boiler operating day test period (see paragraph (h)(3)(iii) of this section):

(A) Diluent gas (CO₂ or O₂) data, using either Method 3A in appendix A–3 to part 60 of this chapter or a diluent gas monitor that has been certified according to part 75 of this chapter.

(B) Stack gas flow rate data, using either Method 2, 2F, or 2G in appendices A–1 and A–2 to part 60 of this chapter, or a flow rate monitor that has been certified according to part 75 of this chapter.

(C) Stack gas moisture content data, using either Method 4 in appendix A–1 to part 60 of this chapter, or a moisture monitoring system that has been certified according to part 75 of this chapter. Alternatively, an appropriate fuel-specific default moisture value from §75.11(b) of this chapter may be used in the calculations or you may petition the Administrator under §75.66 of this chapter for use of a default moisture value for non-coal-fired units.

(D) Hourly ~~electrical load~~ gross output data (megawatts), from facility records.

(ii) If you use CEMS to measure CO₂ (or O₂) concentration, and/or flow rate, and/or moisture, record hourly average values of each parameter throughout the 30-boiler operating day test period. If you opt to use EPA reference methods rather than CEMS for any parameter, you must

perform at least one representative test run on each operating day of the test period, using the applicable reference method.

(iii) Calculate the average Hg concentration, in $\mu\text{g}/\text{m}^3$ (dry basis), for the 30-(or 90-)boiler operating day performance test, as the arithmetic average of all Method 30B sorbent trap results. Also calculate, as applicable, the average values of CO_2 or O_2 concentration, stack gas flow rate, stack gas moisture content, and electrical load for the test period. Then:

(A) To express the test results in units of lb/TBtu, follow the procedures in § 63.10007(e). Use the average Hg concentration and diluent gas values in the calculations.

(B) To express the test results in units of lb/GWh, use Equations A-3 and A-4 in section 6.2.2 of appendix A to this subpart, replacing the hourly values “ C_h ”, “ Q_h ”, “ B_{ws} ” and “ $(MW)_h$ ” with the average values of these parameters from the performance test.

(C) To calculate pounds of Hg per year, use one of the following methods:

(1) Multiply the average lb/TBtu Hg emission rate (determined according to paragraph (h)(3)(iii)(A) of this section) by the maximum potential annual heat input to the unit (TBtu), which is equal to the maximum rated unit heat input (TBtu/hr) times 8,760 hours. If the maximum rated heat input value is expressed in units of MMBtu/hr, multiply it by 10^{-6} to convert it to TBtu/hr; or

(2) Multiply the average lb/GWh Hg emission rate (determined according to paragraph (h)(3)(iii)(B) of this section) by the maximum potential annual electricity generation (GWh), which is equal to the maximum rated electrical output of the unit (GW) times 8,760 hours. If the maximum rated electrical output value is expressed in units of MW, multiply it by 10^{-3} to convert it to GW; or

(3) If an EGU has a federally enforceable permit limit on either the annual heat input or the number of annual operating hours, you may modify the calculations in paragraph (h)(3)(iii)(C)(1) of this section by replacing the maximum potential annual heat input or 8,760 unit operating hours with the permit limit on annual heat input or operating hours (as applicable).”

“(j) Startup and shutdown for coal-fired or solid oil derived-fired units. You must follow the requirements given in Table 3 to this subpart.”

“(k) You must submit a Notification of Compliance Status summarizing the results of your initial compliance demonstration, as provided in §63.10030.”

TABLE 5 TO SUBPART UUUUU OF PART 63—PERFORMANCE TESTING REQUIREMENTS

As stated in §63.10007, you must comply with the following requirements for performance testing for existing, new or reconstructed affected sources:¹

To conduct a performance test for the following pollutant . . .	Using . . .	You must perform the following activities, as applicable to your input- or output-based emission limit . . .	Using ² . . .
1. Filterable Particulate matter (PM)	Emissions Testing	a. Select sampling ports location and the number of traverse points	Method 1 at Appendix A-1 to part 60 of this chapter.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G or 2H at Appendix A-1 or A-2 to part 60 of this chapter.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at Appendix A-2 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981. ³
		d. Measure the moisture content of the stack gas	Method 4 at Appendix A-3 to part 60 of this chapter.
		e. Measure the filterable PM concentration	Method 5 at Appendix A-3 to part 60 of this chapter. For positive pressure fabric filters, Method 5D at Appendix A-3 to part 60 of this chapter for filterable PM emissions. Note that the Method 5 or 5I front half temperature shall be 160° ±14 °C (320° ±25 °F).
		f. Convert emissions concentration to lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at appendix A-7 to Part 60 of this chapter, or calculate using mass emissions rate and gross output data (see §63.10007(e)).
4. Mercury (Hg)	Sorbent trap monitoring system	a. Install, certify, operate, and maintain the sorbent trap monitoring system	Sections 3.2.2 and 5.2 of Appendix A to this subpart.
AES is testing to become an LEE for HG		b. Install, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and §§63.10010(a), (b), (c), and (d).
		c. Convert emissions concentrations to 30 boiler operating day rolling average lb/TBtu	Section 6 of Appendix A to this subpart.

To conduct a performance test for the following pollutant . . .	Using . . .	You must perform the following activities, as applicable to your input- or output-based emission limit . . .	Using ² . . .
		or lb/GWh emissions rates	
	OR	OR	
	LEE testing	a. Select sampling ports location and the number of traverse points	Single point located at the 10% centroidal area of the duct at a port location per Method 1 at Appendix A-1 to part 60 of this chapter or Method 30B at Appendix A-8 for Method 30B point selection.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G, or 2H at Appendix A-1 or A-2 to part 60 of this chapter or flow monitoring system certified per Appendix A of this subpart.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at Appendix A-1 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981, ³ or diluent gas monitoring systems certified according to Part 75 of this chapter.
		d. Measure the moisture content of the stack gas	Method 4 at Appendix A-3 to part 60 of this chapter, or moisture monitoring systems certified according to part 75 of this chapter.
		e. Measure the Hg emission concentration	Method 30B at Appendix A-8 to part 60 of this chapter; perform a 30 operating day test, with a maximum of 10 operating days per run (i.e., per pair of sorbent traps) or sorbent trap monitoring system or Hg CEMS certified per Appendix A of this subpart.
		f. Convert emissions concentrations from the LEE test to lb/TBtu or lb/GWh emissions rates	Method 19 F-factor methodology at Appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and electrical output data (see §63.10007(e)).

To conduct a performance test for the following pollutant . . .	Using . . .	You must perform the following activities, as applicable to your input- or output-based emission limit . . .	Using ² . . .
		g. Convert average lb/TBtu or lb/GWh Hg emission rate to lb/year, if you are attempting to meet the 229.0 lb/year threshold	Potential maximum annual heat input in TBtu or potential maximum electricity generated in GWh.
5. Sulfur dioxide (SO ₂)	SO₂ CEMS	a. Install, certify, operate, and maintain the CEMS	Part 75 of this chapter and §§63.10010(a) and (f).
		b. Install, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and §§63.10010(a), (b), (c), and (d).
		c. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at Appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and electrical output data (see §63.10007(e)).

¹ Regarding emissions data collected during periods of startup or shutdown, see §§63.10020(b) and (c) and §63.10021(h).

² See Tables 1 and 2 to this subpart for required sample volumes and/or sampling run times.

³ Incorporated by reference, see §63.14.

~~⁴When using ASTM D6348-03, the following conditions must be met: (1) The test plan preparation and implementation in the Annexes to ASTM D6348-03, Sections A1 through A8 are mandatory; (2) For ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent (%R) must be determined for each target analyte (see Equation A5.5); (3) For the ASTM D6348-03 test data to be acceptable for a target analyte, %R must be 70% ≤ R ≤ 130%; and (4) The %R value for each compound must be reported in the test report and all field measurements corrected with the calculated %R value for that compound using the following equation:~~

$$\text{Reported Result} = \frac{(\text{Measured Concentration in Stack})}{\%R} \times 100$$

Ref: § 63.10006 - When must I conduct subsequent tests or tune-ups?

“(a) For liquid oil-fired, solid oil-derived fuel-fired and coal-fired EGUs and IGCC units using PM CPMS to monitor continuous performance with an applicable emission limit as provided for under §63.10000(c), you must conduct all applicable performance tests according to Table 5 to this subpart and §63.10007 at least every year.”

“(b) For affected units meeting the LEE requirements of § 63.10005(h), you must repeat the performance test once every 3 years (once every year for Hg) according to Table 5 and § 63.10007. Should subsequent emissions testing results show the unit does not meet the LEE eligibility requirements, LEE status is lost. If this should occur:

(1) For all pollutant emission limits except for Hg, you must conduct emissions testing quarterly, except as otherwise provided in § 63.10021(d)(1).

(2) For Hg, you must install, certify, maintain, and operate a Hg CEMS or a sorbent trap monitoring system in accordance with appendix A to this subpart, within 6 calendar months of losing LEE eligibility. Until the Hg CEMS or sorbent trap monitoring system is installed, certified, and operating, you must conduct Hg emissions testing quarterly, except as otherwise provided in § 63.10021(d)(1). You must have 3 calendar years of testing and CEMS or sorbent trap monitoring system data that satisfy the LEE emissions criteria to reestablish LEE status.”

~~“(f) Unless you follow the requirements listed in paragraphs (g) and (h) of this section, performance tests required at least every 3 calendar years must be completed within 35 to 37 calendar months after the previous performance test; performance tests required at least every year must be completed within 11 to 13 calendar months after the previous performance test; and performance tests required at least quarterly must be completed within 80 to 100 calendar days after the previous performance test, except as otherwise provided in § 63.10021(d)(1).”~~

~~“(f) *Time between performance tests.* (1) Notwithstanding the provisions of §63.10021(d)(1), the requirements listed in paragraphs (g) and (h) of this section, and the requirements of paragraph (f)(3) of this section, you must complete performance tests for your EGU as follows:~~

~~(i) At least 45 calendar days, measured from the test's end date, must separate performance tests conducted every quarter;~~

~~(ii) For annual testing:~~

~~(A) At least 320 calendar days, measured from the test's end date, must separate performance tests;~~

~~(B) At least 320 calendar days, measured from the test's end date, must separate annual sorbent trap mercury testing for 30-boiler operating day LEE tests;~~

~~(C) At least 230 calendar days, measured from the test's end date, must separate annual sorbent trap mercury testing for 90-boiler operating day LEE tests; and~~

~~(iii) At least 1,050 calendar days, measured from the test's end date, must separate performance tests conducted every 3 years.~~

~~(2) For units demonstrating compliance through quarterly emission testing, you must conduct a performance test in the 4th quarter of a calendar year if your EGU has skipped performance tests in the first 3 quarters of the calendar year.~~

(3) If your EGU misses a performance test deadline due to being inoperative and if 168 or more boiler operating hours occur in the next test period, you must complete an additional performance test in that period as follows:

- (i) At least 15 calendar days must separate two performance tests conducted in the same quarter.
- (ii) At least 107 calendar days must separate two performance tests conducted in the same calendar year.
- (iii) At least 350 calendar days must separate two performance tests conducted in the same 3 year period.”

“(h) If a performance test on a non-mercury LEE shows emissions in excess of 50 percent of the emission limit and if you choose to reapply for LEE status, you must conduct performance tests at the appropriate frequency given in section (c) through (e) of this section for that pollutant until all performance tests over a consecutive 3-year period show compliance with the LEE criteria.

“(i) If you are required to meet an applicable tune-up work practice standard, you must conduct a performance tune-up according to § 63.10021(e). (1) For EGUs not employing neural network combustion optimization during normal operation, each performance tune-up specified in § 63.10021(e) must be no more than 36 calendar months after the previous performance tune-up. (2) For EGUs employing neural network combustion optimization systems during normal operation, each performance tune-up specified in § 63.10021(e) must be no more than 48 calendar months after the previous performance tune-up.”

~~“(j) You must report the results of performance tests and performance tune-ups within 60 days after the completion of the performance tests and performance tune-ups. The reports for all subsequent performance tests must include all applicable information required in § 63.10031.”~~

§63.10007 What methods and other procedures must I use for the performance tests?

“(a) Except as otherwise provided in this section, you must conduct all required performance tests according to §63.7(d), (e), (f), and (h). You must also develop a site-specific test plan according to the requirements in §63.7(c).

(1) If you use CEMS (Hg, HCl, **SO₂**, or other) to determine compliance with a 30- (or, if applicable, 90-) boiler operating day rolling average emission limit, you must collect quality- assured CEMS data for all unit operating conditions, including startup and shutdown (see §63.10011(g) and Table 3 to this subpart), except as otherwise provided in §63.10020(b). Emission rates determined during startup periods and shutdown periods (as defined in §63.10042) are not to be included in the compliance determinations, except as otherwise provided in §§63.10000(c)(1)(vi)(B) and 63.10005(a)(2)(iii).

(2) If you conduct performance testing with test methods in lieu of continuous monitoring, operate the unit at maximum normal operating load conditions during each periodic (e.g., quarterly) performance test. Maximum normal operating load will be generally between 90 and 110 percent of design capacity but should be representative of site-specific normal operations during each test run.”

“(b) You must conduct each performance test (including traditional 3-run stack tests, 30-boiler operating day tests based on CEMS data (or sorbent trap monitoring system data), and 30-boiler operating day Hg emission tests for LEE qualification) according to the requirements in Table 5 to this subpart”.

“(d) Except for a 30-boiler operating day performance test based on CEMS (or sorbent trap monitoring system) data, where the concept of test runs does not apply, you must conduct a minimum of three separate test runs for each performance test, as specified in §63.7(e)(3). Each test run must comply with the minimum applicable sampling time or volume specified in Table 1 or 2 to this subpart. Sections 63.10005(d) and (h), respectively, provide special instructions for conducting performance tests based on CEMS or sorbent trap monitoring systems, and for conducting emission tests for LEE qualification.”

“(e) To use the results of performance testing to determine compliance with the applicable emission limits in Table 1 or 2 to this subpart, proceed as follows:

(1) Except for a 30-boiler operating day performance test based on CEMS (or sorbent trap monitoring system) data, if measurement results for any pollutant are reported as below the method detection level (e.g., laboratory analytical results for one or more sample components are below the method defined analytical detection level), you must use the method detection level as the measured emissions level for that pollutant in calculating compliance. The measured result for a multiple component analysis (e.g., analytical values for multiple Method 29 fractions both for individual HAP metals and for total HAP metals) may include a combination of method detection level data and analytical data reported above the method detection level.”

(2) If the limits are expressed in lb/MMBtu or lb/TBtu, you must use the F-factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 in appendix A-7 to part 60 of this chapter. In cases where an appropriate F-factor is not listed in Table 19-2 of Method 19, you may use F-factors from Table 1 in section 3.3.5 of appendix F to part 75 of this chapter, or F-factors derived using the procedures in section 3.3.6 of appendix to part 75 of this chapter. Use the following factors to convert the pollutant concentrations measured during the initial performance tests to units of lb/scf, for use in the applicable Method 19 equations:

- (i) Multiply SO₂ ppm by 1.66×10^{-7} ;
- (ii) Multiply HCl ppm by 9.43×10^{-8} ;
- (iii) Multiply HF ppm by 5.18×10^{-8} ;
- (iv) Multiply HAP metals concentrations (mg/dscm) by 6.24×10^{-8} ; and
- (v) Multiply Hg concentrations (µg/scm) by 6.24×10^{-11} .”

(3) To determine compliance with emission limits expressed in lb/MWh or lb/GWh, you must first calculate the pollutant mass emission rate during the performance test, in units of lb/h. For Hg, if a CEMS or sorbent trap monitoring system is used, use Equation A-2 or A-3 in appendix A to this subpart (as applicable). In all other cases, use an equation that has the general form of Equation A-2 or A-3, replacing the value of K with 1.66×10^{-7} lb/scf-ppm for SO₂, 9.43×10^{-8} lb/scfppm for HCl (if an HCl CEMS is used), 5.18×10^{-8} lb/scf-ppm for HF (if an HF CEMS is used), or 6.24×10^{-8} lb-scm/mg-scf for HAP metals and for HCl and HF (when performance stack testing is used), and defining C_h as the average SO₂, HCl, or HF concentration in ppm, or the average HAP metals concentration in mg/dscm. This calculation requires stack gas volumetric flow rate (scfh) and (in some cases) moisture content data (see §§63.10005(h)(3) and 63.10010). Then, if the applicable emission limit is in units of lb/GWh, use

Equation A-4 in appendix A to this subpart to calculate the pollutant emission rate in lb/GWh. In this calculation, define $(M)_h$ as the calculated pollutant mass emission rate for the performance test (lb/h), and define $(MW)_h$ as the average electrical load during the performance test (megawatts). If the applicable emission limit is in lb/MWh rather than lb/GWh, omit the 10^3 term from Equation A-4 to determine the pollutant emission rate in lb/MWh.”

“(f) If you elect to (or are required to) use CEMS to continuously monitor Hg, HCl, HF, **SO₂**, or PM emissions (or, if applicable, sorbent trap monitoring systems to continuously collect Hg emissions data), the following default values are available for use in the emission rate calculations during startup periods or shutdown periods (as defined in §63.10042). For the purposes of this subpart, these default values are not considered to be substitute data.

(1) *Diluent cap values.* If you use CEMS (or, if applicable, sorbent trap monitoring systems) to comply with a heat input-based emission rate limit, you may use the following diluent cap values for a startup or shutdown hour in which the measured CO₂ concentration is below the cap value or the measured O₂ concentration is above the cap value:

- (i) For an IGCC EGU, you may use 1% for CO₂ or 19% for O₂.
- (ii) For all other EGUs, you may use 5% for CO₂ or 14% for O₂.

(2) *Default ~~electrical load gross output~~.* If you use CEMS to continuously monitor Hg, HCl, HF, **SO₂**, or PM emissions (or, if applicable, **sorbent trap monitoring systems to continuously collect Hg emissions data**), the following default value is available for use in the emission rate calculations during startup periods or shutdown periods (as defined in §63.10042). For the purposes of this subpart, this default value is not considered to be substitute data. For a startup or shutdown hour in which there is heat input to an affected EGU but zero ~~electrical load gross output~~, you must calculate the pollutant emission rate using a value equivalent to 5% of the maximum sustainable ~~electrical gross~~ output, expressed in megawatts, as defined in section 6.5.2.1(a)(1) of Appendix A to part 75 of this chapter. This default ~~electrical load gross output~~ is either the nameplate capacity of the EGU or the highest ~~electrical load gross output~~ observed in at least four representative quarters of EGU operation. For a monitored common stack, the default ~~electrical load gross output~~ is used only when all EGUs are operating (i.e., combusting fuel) are in startup or shutdown mode, and have zero electrical generation. Under those conditions, a default ~~electrical load gross output~~ equal to 5% of the combined maximum sustainable ~~electrical load gross outlet~~ of the EGUs that are operating but have a total of zero ~~electrical load gross output~~ must be used to calculate the hourly ~~electrical gross~~ output-based pollutant emissions rate.”

“(g) Upon request, you shall make available to the EPA Administrator such records as may be necessary to determine whether the performance tests have been done according to the requirements of this section.”

Monitoring Requirements:

§63.10010 - What are my monitoring, installation, operation, and maintenance requirements?

“(a) For the CEMS, PM CPMS, and sorbent trap monitoring systems used to provide data under this subpart, the continuous monitoring system installation requirements for these exhaust configurations are as follows:

(1) Single unit-single stack configurations. For an affected unit that exhausts to the atmosphere through a single, dedicated stack, you shall either install the required CEMS, PM CPMS, and sorbent trap monitoring systems in the stack or at a location in the ductwork downstream of all emissions control devices, where the pollutant and diluents concentrations are representative of the emissions that exit to the atmosphere.”

“(b) If you use an oxygen (O₂) or carbon dioxide (CO₂) CEMS to convert measured pollutant concentrations to the units of the applicable emissions limit, the O₂ or CO₂ concentrations shall be monitored at a location that represents emissions to the atmosphere, i.e., at the outlet of the EGU, downstream of all emission control devices. You must install, certify, maintain, and operate the CEMS according to part 75 of this chapter. Use only quality-assured O₂ or CO₂ data in the emissions calculations; do not use part 75 substitute data values.”

“(c) If you are required to use a stack gas flow rate monitor, either for routine operation of a sorbent trap monitoring system or to convert pollutant concentrations to units of an electrical output-based emission standard in Table 2 to this subpart, you must install, certify, operate, and maintain the monitoring system and conduct ongoing quality-assurance testing of the system according to part 75 of this chapter. Use only unadjusted, quality assured flow rate data in the emissions calculations. Do not apply bias adjustment factors to the flow rate data and do not use substitute flow rate data in the calculations.”

“(d) If you are required to make corrections for stack gas moisture content when converting pollutant concentrations to the units of an emission standard in Table 2 to this subpart, you must install, certify, operate, and maintain a moisture monitoring system in accordance with part 75 of this chapter. Alternatively, for coal-fired units, you may use appropriate fuel-specific default moisture values from §75.11(b) of this chapter to estimate the moisture content of the stack gas or you may petition the Administrator under § 75.66 of this chapter for use of a default moisture value for non-coal-fired units. If you install and operate a moisture monitoring system, do not use substitute moisture data in the emissions calculations.”

“(f)(1) If you use an SO₂ CEMS, you must install the monitor at the outlet of the EGU, downstream of all emission control devices, and you must certify, operate, and maintain the CEMS according to part 75 of this chapter.

(2) For on-going QA, the SO₂ CEMS must meet the applicable daily, quarterly, and semiannual or annual requirements in sections 2.1 through 2.3 of appendix B to part 75 of this chapter, with the following addition: You must perform the linearity checks required in section 2.2 of appendix B to part 75 of this chapter if the SO₂ CEMS has a span value of 30 ppm or less.

(3) Calculate and record a 30-boiler operating day rolling average SO₂ emission rate in the units of the standard, updated after each new boiler operating day. Each 30-boiler operating day rolling average emission rate is the average of all of the valid SO₂ emission rates in the preceding 30 boiler operating days.

(4) Use only unadjusted, quality assured SO₂ concentration values in the emissions calculations; do not apply bias adjustment factors to the part 75 SO₂ data and do not use part 75 substitute data values. For startup or shutdown hours (as defined in §63.10042) the default gross output and the diluent cap are available for use in the hourly SO₂ emission rate calculations, as described in §63.10007(f). Use a flag to identify each startup or shutdown hour and report a special code if the diluent cap or default gross output is used to calculate the SO₂ emission rate for any of these hours.”

“(g) If you use a Hg CEMS or a sorbent trap monitoring system, you must install, certify, operate, maintain and quality-assure the data from the monitoring system in accordance with appendix A to this subpart. You must calculate and record a 30- (or, if alternate emissions averaging is used, 90-) boiler operating day rolling average Hg emission rate, in units of the standard, updated after each new boiler operating day. Each 30- (or, if alternate emissions averaging is used, 90-) boiler operating day rolling average emission rate, calculated according to section 6.2 of appendix A to the subpart, is the average of all of the valid hourly Hg emission rates in the preceding 30- (or, if alternate emissions averaging is used, 90-) boiler operating days. Section 7.1.4.3 of appendix A to this subpart explains how to reduce sorbent trap monitoring system data to an hourly basis.”

§63.10011 How do I demonstrate initial compliance with the emissions limits and work practice standards?

“(a) You must demonstrate initial compliance with each emissions limit that applies to you by conducting performance testing.”

“(c)(1) If you use CEMS or **sorbent trap monitoring systems** to measure a HAP (e.g., Hg or HCl) directly, ~~the first 30-boiler operating day (or, if alternate emissions averaging is used for Hg, the 90-boiler operating day) rolling average emission rate obtained with certified CEMS after the applicable date in §63.9984 (or, if applicable, prior to that date, as described in §63.10005(b)(2)), expressed in units of the standard, is the initial performance test.~~ the initial performance test, shall consist of a 30-boiler operating day (or, for certain coal-fired, existing EGUs that use emissions averaging for Hg, a 90-boiler operating day) rolling average emissions rate obtained with a certified CEMS or sorbent trap system, expressed in units of the standard. If the monitoring system is certified prior to the applicable compliance date, the initial averaging period shall either begin with: The first boiler operating day on or after the compliance date; or 30 (or, if applicable, 90) boiler operating days prior to that date, as described in §63.10005(b). In all cases, the initial 30- or 90-boiler operating day averaging period must be completed on or before the date that compliance must be demonstrated, in accordance with §63.9984(f). Initial compliance is demonstrated if the results of the performance test meet the applicable emission limit in Table 1 or 2 to this subpart.

(2) For a unit that uses a CEMS to measure SO₂ or PM emissions for initial compliance, ~~the first 30 boiler operating day average emission rate obtained with certified CEMS after the applicable date in §63.9984 (or, if applicable, prior to that date, as described in §63.10005(b)(2)), expressed in units of the standard, is the initial performance test.~~ the initial performance test shall consist of a 30-boiler

operating day average emission rate obtained with certified CEMS, expressed in units of the standard. If the monitoring system is certified prior to the applicable compliance date, the initial averaging period shall either begin with: The first boiler operating day on or after the compliance date; or 30 boiler operating days prior to that date, as described in §63.10005(b). In all cases, the initial 30- boiler operating day averaging period must be completed on or before the date that compliance must be demonstrated, in accordance with §63.9984(f). Initial compliance is demonstrated if the results of the performance test meet the applicable SO₂ or filterable PM emission limit in Table 1 or 2 to this subpart.”

“(d) For candidate LEE units, use the results of the performance testing described in §63.10005(h) to determine initial compliance with the applicable emission limit(s) in Table 1 or 2 to this subpart and to determine whether the unit qualifies for LEE status.”

“(e) You must submit a Notification of Compliance Status containing the results of the initial compliance demonstration, according to §63.10030(e).”

“(f)(1) You must determine the fuel whose combustion produces the least uncontrolled emissions, *i.e.*, the cleanest fuel, either natural gas or distillate oil, that is available on site or accessible nearby for use during periods of startup or shutdown.

(2) Your cleanest fuel, either natural gas or distillate oil, for use during periods of startup or shutdown determination may take safety considerations into account.”

“(g) You must follow the startup or shutdown requirements as given in Table 3 to this subpart for each coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGU.

(1) You may use the diluent cap and default electrical load values, as described in §63.10007(f), during startup periods or shutdown periods.

(2) You must operate all CMS, collect data, calculate pollutant emission rates, and record data during startup periods or shutdown periods.

(3) You must report the information as required in §63.10031.

(4) If you choose to use paragraph (2) of the definition of “startup” in §63.10042 and you find that you are unable to safely engage and operate your particulate matter (PM) control(s) within 1 hour of first firing of coal, residual oil, or solid oil-derived fuel, you may choose to rely on paragraph (1) of definition of “startup” in §63.10042 or you may submit a request to use an alternative non-opacity emissions standard, as described below.

(i) As mentioned in §63.6(g)(1), the request will be published in the FEDERAL REGISTER for notice and comment rulemaking. Until promulgation in the FEDERAL REGISTER of the final alternative nonopacity emission standard, you shall comply with paragraph (1) of the definition of “startup” in §63.10042. You shall not implement the alternative non-opacity emissions standard until promulgation in the FEDERAL REGISTER of the final alternative non-opacity emission standard.

(ii) The request need not address the items contained in §63.6(g)(2).

(iii) The request shall provide evidence of a documented manufacturer-identified safety issue.

(iv) The request shall provide information to document that the PM control device is adequately designed and sized to meet the PM emission limit applicable to the EGU.

(v) In addition, the request shall contain documentation that:

(A) The EGU is using clean fuels to the maximum extent possible, **taking into account considerations such as not compromising boiler or control device integrity**, to bring the EGU and PM control device up to the temperature necessary to alleviate or prevent the identified safety issues prior to the combustion of primary fuel in the EGU;

(B) The EGU has explicitly followed the manufacturer's procedures to alleviate or prevent the identified safety issue; and

(C) Identifies with specificity the details of the manufacturer's statement of concern.

(vi) The request shall specify the other work practice standards the EGU owner or operator will take to limit HAP emissions during startup periods and shutdown periods to ensure a control level consistent with the work practice standards of the final rule.

(vii) You must comply with all other work practice requirements, including but not limited to data collection, record keeping, and reporting requirements.”

§63.10020 How do I monitor and collect data to demonstrate continuous compliance?

“(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by §63.10000(d).”

“(b) You must operate the monitoring system and collect data at all required intervals at all times that the affected EGU is operating, except for periods of monitoring system malfunctions or out-of-control periods (see §63.8(c)(7) of this part), and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. You are required to affect monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.”

“(c) You may not use data recorded during EGU startup or shutdown in calculations used to report emissions, except as otherwise provided in §§63.10000(c)(1)(vi)(B) and 63.10005(a)(2)(iii). In addition, data recorded during monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, or required monitoring system quality assurance or control activities may not be used in calculations used to report emissions or operating levels. You must use all of the quality-assured data collected during all other periods in assessing the operation of the control device and associated control system.”

“(d) Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments), failure to collect required data is a deviation from the monitoring requirements.”

“(e) Additional requirements during startup periods or shutdown periods **if you choose to rely on paragraph (2) of the definition of “startup” in §63.10042 for your EGU. – Not Applicable**

(1) During each period of startup, you must record for each EGU:

- (i) The date and time that clean fuels being combusted for the purpose of startup begins;
- (ii) The quantity and heat input of clean fuel for each hour of startup;
- (iii) The ~~electrical load~~gross output for each hour of startup;
- (iv) The date and time that non-clean fuel combustion begins; and
- (v) The date and time that clean fuels being combusted for the purpose of startup ends.

(2) During each period of shutdown, you must record for each EGU:

- (i) The date and time that clean fuels being combusted for the purpose of shutdown begins;
- (ii) The quantity and heat input of clean fuel for each hour of shutdown;
- (iii) The ~~electrical load~~gross output for each hour of shutdown;
- (iv) The date and time that non-clean fuel combustion ends; and
- (v) The date and time that clean fuels being combusted for the purpose of shutdown ends.

(3) For PM or non-mercury HAP metals work practice monitoring during startup periods, you must monitor and collect data according to this section and the site-specific monitoring plan required by §63.10011(l).

(i) Except for an EGU that uses PM CEMS or PM CPMS to demonstrate compliance with the PM emissions limit or that has LEE status for filterable PM or total non-Hg HAP metals for nonliquid oil-fired EGUs (or HAP metals emissions for liquid oil-fired EGUs), or individual non-mercury metals CEMS you must:

- (A) Record temperature and ~~combustion air flow or calculated flow as determined from combustion equations of flow rate of~~ post-combustion (exhaust) gas, ~~as well as and~~ amperage of forced draft fan(s) upstream of each filterable PM control device during each hour of startup.
- (B) Record temperature and flow rate of exhaust gas, ~~as well as and~~ amperage of induced draft fan(s) downstream of each filterable control device during each hour of startup.”
- “(D) For an EGU with a fabric filter, record the number of compartments in service, as well as the differential pressure across the baghouse during each hour of startup.”

§63.10021 How do I demonstrate continuous compliance with the emission limitations, operating limits, and work practice standards?

“(a) You must demonstrate continuous compliance with each emissions limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that applies to you, according to the monitoring specified in Tables 6 and 7 to this subpart and paragraphs (b) through (g) of this section.” **Note: Table 6- Not Applicable, See Table 7 at end of this section)**

“(b) Except as otherwise provided in §63.10020(c), if you use a **CEMS** to measure **SO₂**, PM, HCl, HF, or Hg emissions, or **using a sorbent trap monitoring system** to measure Hg emissions, you must demonstrate continuous compliance by using all quality-assured hourly data recorded by the CEMS (or sorbent trap monitoring system) and the other required monitoring systems (e.g., flow rate, CO₂, O₂, or moisture systems) to calculate the arithmetic average emissions rate in units of the standard on a continuous 30-boiler operating day (or, if alternate emissions averaging is used for Hg, 90-boiler operating day) rolling average basis, updated at the end of each new boiler operating day. Use Equation 8 to determine the 30- (or, if applicable, 90-) boiler operating day rolling average.”

$$\text{Boiler operating day average} = \frac{\sum_{i=1}^n Her_i}{n} \text{ (Eq. 8)}$$

Where:

Her_i is the hourly emissions rate for hour i and n is the number of hourly emissions rate values collected over 30- (or, if applicable, 90-) boiler operating days.

“(d) If you use quarterly performance testing to demonstrate compliance with one or more applicable emissions limits in Table 1 or 2 to this subpart, you

(1) May skip performance testing in those quarters during which less than 168 boiler operating hours occur, except that a performance test must be conducted at least once every calendar year.

(2) Must conduct the performance test as defined in Table 5 to this subpart and calculate the results of the testing in units of the applicable emissions standard;”

“(e) ~~If you must~~ Conduct periodic performance tune-ups of your EGU(s), as specified in paragraphs (e)(1) through (9) of this section. ~~perform the~~ For your first tune-up, you may perform the burner inspection any time prior to the tune-up or as part of your initial compliance demonstration. ~~Notwithstanding this requirement,~~ you may delay the first burner inspection until the next scheduled unit EGU outage provided you meet the requirements of §63.10005. Subsequently, you must perform an inspection of the burner at least once every 36 calendar months unless your EGU employs neural network combustion optimization during normal operations in which case you must perform an inspection of the burner and combustion controls at least once every 48 calendar months. ~~If your EGU is offline when a deadline to perform the tune-up passes, you shall perform the tune-up work practice requirements within 30 days after the re-start of the affected unit.~~

(1) As applicable, inspect the burner and combustion controls, and clean or replace any components of the burner or combustion controls as necessary upon initiation of the work practice program and at least once every required inspection period. Repair of a burner or combustion control component requiring special order parts may be scheduled as follows:

- (i) Burner or combustion control component parts needing replacement that affect the ability to optimize NO_x and CO must be installed within 3 calendar months after the burner inspection,
- (ii) Burner or combustion control component parts that do not affect the ability to optimize NO_x and CO may be installed on a schedule determined by the operator;

(2) As applicable, inspect the flame pattern and make any adjustments to the burner or combustion controls necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available, or in accordance with best combustion engineering practice for that burner type;

(3) As applicable, observe the damper operations as a function of mill and/or cyclone loadings, cyclone and pulverizer coal feeder loadings, or other pulverizer and coal mill performance parameters, making adjustments and effecting repair to dampers, controls, mills, pulverizers, cyclones, and sensors;

(4) As applicable, evaluate windbox pressures and air proportions, making adjustments and effecting repair to dampers, actuators, controls, and sensors;

(5) Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly. Such inspection may include calibrating excess O₂ probes and/or sensors, adjusting overfire air systems, changing software parameters, and calibrating associated actuators and dampers to ensure that the systems are operated as designed. Any component out of calibration, in or near failure, or in a state that is likely to negate combustion optimization efforts prior to the next tune-up, should be corrected or repaired as necessary;

(6) Optimize combustion to minimize generation of CO and NO_x. This optimization should be consistent with the manufacturer's specifications, if available, or best combustion engineering practice for the applicable burner type. NO_x optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, adjusting combustion zone temperature profiles, and add-on controls such as SCR and SNCR; CO optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, and adjusting combustion zone temperature profiles;

(7) While operating at full load or the predominantly operated load, measure the concentration in the effluent stream of CO and NO_x in ppm, by volume, and oxygen in volume percent, before and after the tune-up adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). You may use portable CO, NO_x and O₂ monitors for this measurement. EGU's employing neural network optimization systems need only provide a single pre- and post-tune-up value rather than continual values before and after each optimization adjustment made by the system;

(8) Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (e)(1) through (e)(9) of this section including:

- (i) The concentrations of CO and NO_x in the effluent stream in ppm by volume, and oxygen in volume percent, measured before and after an adjustment of the EGU combustion systems;
- (ii) A description of any corrective actions taken as a part of the combustion adjustment; and
- (iii) The type(s) and amount(s) of fuel used over the 12 calendar months prior to an adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period; and

(9) Report the dates of the initial and subsequent tune-ups in hard copy, as specified in §63.10031 (f) (5), through June 30, 2020. On or after July 1, 2020, report the date of all tune-ups electronically in accordance with §63.10031 (f). The tune-up report date is the date when tune-up requirements in paragraphs (e) (6) and (7) of this section are completed as follows:

- ~~(i) If the first required tune-up is performed as part of the initial compliance demonstration, report the date of the tune-up in hard copy (as specified in §63.10030) and electronically (as specified in §63.10031). Report the date of each subsequent tune-up electronically (as specified in §63.10031).~~

~~(ii) If the first tune-up is not conducted as part of the initial compliance demonstration, but is postponed until the next unit outage, report the date of that tune-up and all subsequent tune-ups electronically, in accordance with §63.10031.”~~

(f) You must submit the reports required under §63.10031 and, if applicable, the reports required under appendices A and B to this subpart. The electronic reports required by appendices A and B to this subpart must be sent to the Administrator electronically in a format prescribed by the Administrator, as provided in §63.10031. CEMS data (except for PM CEMS and any approved alternative monitoring using a HAP metals CEMS) shall be submitted using EPA's Emissions Collection and Monitoring Plan System (ECMPS) Client Tool. Other data, including PM CEMS data, HAP metals CEMS data, and CEMS performance test detail reports, shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool, the Compliance and Emissions Data Reporting Interface, or alternate electronic file format, all as provided for under §63.10031.”

“(g) You must report each instance in which you did not meet an applicable emissions limit or operating limit in Tables 1 through 4 to this subpart or failed to conduct a required tune-up. These instances are deviations from the requirements of this subpart. These deviations must be reported according to §63.10031.”

“(h) You must follow the startup or shutdown requirements as given in Table 3 to this subpart for each coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGU.

- (1) You may use the diluent cap and default ~~electrical load gross output~~ values, as described in §63.10007(f), during startup periods or shutdown periods.
- (2) You must operate all CMS, collect data, calculate pollutant emission rates, and record data during startup periods or shutdown periods.
- (3) You must report the information as required in §63.10031.
- (4) You may choose to submit an alternative non-opacity emission standard, in accordance with the requirements contained in §63.10011(g)(4). Until promulgation in the FEDERAL REGISTER of the final alternative non-opacity emission standard, you shall comply with paragraph (1) of the definition of “startup” in §63.10042.”

(i) You must provide reports as specified in §63.10031 concerning activities and periods of startup and shutdown.

TABLE 7 TO SUBPART UUUUU OF PART 63—DEMONSTRATING CONTINUOUS COMPLIANCE

As stated in §63.10021, you must show continuous compliance with the emission limitations for affected sources according to the following:

If you use one of the following to meet applicable emissions limits, operating limits, or work practice standards . . .	You demonstrate continuous compliance by . . .
1. CEMS to measure filterable PM, SO ₂ , HCl, HF, or Hg emissions, or using a sorbent trap monitoring system to measure Hg	Calculating the 30- (or 90-) boiler operating day rolling arithmetic average emissions rate in units of the applicable emissions standard basis at the end of each boiler operating day using all of the quality assured hourly average CEMS or sorbent trap data for

	the previous 30- (or 90-) boiler operating days, excluding data recorded during periods of startup or shutdown.
5. Conducting periodic performance tune-ups of your EGU(s)	Conducting periodic performance tune-ups of your EGU(s), as specified in §63.10021(e).
6. Work practice standards for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs during startup	Operating in accordance with Table 3.
7. Work practice standards for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs during shutdown	Operating in accordance with Table 3.

Record Keeping Requirements:

§63.10032 What records must I keep?

“(a) You must keep records according to paragraphs (a)(1) and (2) of this section. If you are required to (or elect to) continuously monitor Hg and/or HCl and/or HF emissions, you must also keep the records required under appendix A and/or appendix B to this subpart.”

“(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in § 63.10(b)(2)(xiv).”

“(2) Records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in § 63.10(b)(2)(viii).”

“(b) For each CEMS and CPMS, you must keep records according to paragraphs (b)(1) through (4) of this section.”

(1) Records described in § 63.10(b)(2)(vi) through (xi).

(2) Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Request for alternatives to relative accuracy test for CEMS as required in § 63.8(f)(6)(i).

(4) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.”

“(c) You must keep the records required in Table 7 to this subpart (*including records of all monitoring data and calculated averages for applicable PM CPMS operating limits - **not applicable*** - to show continuous compliance with each emission limit and operating limit that applies to you.”

“(d) For each EGU subject to an emission limit, you must also keep the records in paragraphs (d)(1) through (3) of this section.”

“(1) You must keep records of monthly fuel use by each EGU, including the type(s) of fuel and amount(s) used.”

“(3) For an EGU that qualifies as an LEE under § 63.10005(h), you must keep annual records that document that your emissions in the previous stack test(s) continue to qualify the unit for LEE status for an applicable pollutant, and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the pollutant to increase within the past year.”

“(f) ~~You must keep records of the occurrence and duration of each startup and/or shutdown. Regarding startup periods or shutdown periods:~~

(1) ~~Should you choose to rely on paragraph (1) of the definition of “startup” in §63.10042 for your EGU, you must keep records of the occurrence and duration of each startup or shutdown.~~

(2) ~~Should you choose to rely on paragraph (2) of the definition of “startup” in §63.10042 for your EGU, you must keep records of:~~

(i) ~~The determination of the maximum possible clean fuel capacity for each EGU;~~

- (ii) The determination of the maximum possible hourly clean fuel heat input and of the hourly clean fuel heat input for each EGU;
- (iii) The information required in §63.10020 (e).”

“(g) You must keep records of the occurrence and duration of each malfunction of an operation (i.e., process equipment) or the air pollution control and monitoring equipment.”

“(h) You must keep records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.”

“(i) You must keep records of the type(s) and amount(s) of fuel used during each startup or shutdown.”

§63.10033 - In what form and how long must I keep my records?

“(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).”

“(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.”

“(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off site for the remaining 3 years.”

Reporting Requirements:

§63.10030 What notifications must I submit and when?

“(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified.”

“(b) As specified in § 63.9(b)(2), if you startup your EGU that is an affected source before April 16, 2012, you must submit an Initial Notification not later than 120 days after April 16, 2012.”

“(d) When you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.”

“(e) When you are required to conduct an initial compliance demonstration as specified in § 63.10011(a), you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (78), as applicable.”

(1) A description of the affected source(s) including identification of which subcategory the source is in, the design capacity of the source, a description of the add-on controls used on the source, description of the fuel(s) burned, including whether the fuel(s) were determined by you or EPA through a petition process to be a non-waste under 40 CFR 241.3, whether the fuel(s) were processed from discarded nonhazardous secondary materials within the meaning of 40 CFR 241.3, and justification for the selection of fuel(s) burned during the performance test.

(2) Summary of the results of all performance tests and fuel analyses and calculations conducted to demonstrate initial compliance including all established operating limits.

(3) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing; fuel moisture analyses; performance testing with operating limits (e.g., use of PM CPMS); CEMS; or a sorbent trap monitoring system.

(4) Identification of whether you plan to demonstrate compliance by emissions averaging.

(5) A signed certification that you have met all applicable emission limits and work practice standards.

(6) If you had a deviation from any emission limit, work practice standard, or operating limit, you must also submit a brief description of the deviation, the duration of the deviation, emissions point identification, and the cause of the deviation in the Notification of Compliance Status report.

(7) In addition to the information required in § 63.9(h)(2), your notification of compliance status must include the following:

(i) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable. If you are conducting stack tests once every 3 years consistent with § 63.10006(b)5(h)(1)(i), the date of each stack test conducted during the previous 3 years, ~~the last three stack tests~~, a comparison of the emission level you achieved in each stack test conducted during the previous 3 years ~~the last three stack tests~~ to the 50 percent emission limit threshold required in § 63.10006(i), and a statement as to

whether there have been any operational changes since the last stack test that could increase emissions.

(ii) Certifications of compliance, as applicable, and must be signed by a responsible official stating:

(A) "This EGU complies with the requirements in § 63.10021(a) to demonstrate continuous compliance." And

(B) "No secondary materials that are solid waste were combusted in any affected unit."

(iii) For each of your existing EGUs, identification of each emissions limit as specified in Table 2 to this subpart with which you plan to comply.

(A) You may switch from a mass per heat input to a mass per gross output limit (or vice-versa), provided that:

(1) You submit a request that identifies for each EGU or EGU emissions averaging group involved in the proposed switch both the current and proposed emission limit;

(2) Your request arrives to the Administrator at least 30 calendar days prior to the date that the switch is proposed to occur;

(3) Your request demonstrates through performance stack test results completed within 30 days prior to your submission, compliance for each EGU or EGU emissions averaging group with both the mass per heat input and mass per gross output limits;

(4) You revise and submit all other applicable plans, e.g., monitoring and emissions averaging, with your request; and

(5) You maintain records of all information regarding your choice of emission limits.

(B) You begin to use the revised emission limits starting in the next reporting period, after receipt of written acknowledgement from the Administrator of the switch.

(C) From submission of your request until start of the next reporting period after receipt of written acknowledgement from the Administrator of the switch, you demonstrate compliance with both the mass per heat input and mass per gross output emission limits for each pollutant for each EGU or EGU emissions averaging group.

(8) "Identification of whether you plan to rely on paragraph (1) or (2) of the definition of "startup" in §63.10042."

"(i) Should you choose to rely on paragraph (2) of the definition of "startup" in §63.10042 for your EGU, you shall include a report that identifies:

(A) The original EGU installation date;

(B) The original EGU design characteristics, including, but not limited to, fuel mix and PM controls;

(C) Each design PM control device efficiency established during performance testing or while operating in periods other than startup and shutdown periods;

(D) The design PM emission rate from the EGU in terms of pounds PM per MMBtu and pounds PM per hour established during performance testing or while operating in periods other than startup and shutdown periods;

(E) The design time from start of fuel combustion to necessary conditions for each PM control device startup;

(F) Each design PM control device efficiency upon startup of the PM control device, if different from the efficiency provided in paragraph (e) (8) (i) (C) of this section;

~~(G) The design EGU uncontrolled PM emission rate in terms of pounds PM per hour;~~

~~(H) Each change from the original design that did or could have changed PM emissions, including, but not limited to, each different fuel mix, each revision to each PM control device, and each EGU revision, along with the month and year that the change occurred;~~

~~(I) Current EGU PM producing characteristics, including, but not limited to, fuel mix and PM controls, if different from the characteristics provided in paragraph (e) (8) (i) (B) of this section;~~

~~(J) Current PM control device efficiency from each PM control device, if different from the efficiency provided in paragraph (e) (8) (i) (C) of this section;~~

~~(K) Current PM emission rate from the EGU in terms of pounds PM per MMBtu and pounds per hour, if different from the rate provided in paragraph (e) (8) (i) (D) of this section;~~

~~(L) Current time from start of fuel combustion to conditions necessary for each PM control device startup, if different from the time provided in paragraph (e) (8) (i) (E) of this section;~~
and

~~(M) Current PM control device efficiency upon startup of each PM control device, if different from the efficiency provided in paragraph (e) (8) (i) (H) of this section.; and~~

~~(N) Current EGU uncontrolled PM emission rate in terms of pounds PM per hour.”~~

“(ii) The report shall be prepared, signed, and sealed by a professional engineer licensed in the state where your EGU is located. ~~Apart from preparing, signing, and sealing this report, the professional engineer shall be independent and not otherwise employed by your company, any parent company of your company, or any subsidiary of your company.~~

- (iii) You may switch from paragraph (1) of the definition of “startup” in §63.10042 to paragraph (2) of the definition of “startup” (or vice-versa), provided that:
- (A) You submit a request that identifies for each EGU or EGU emissions averaging group involved in the proposed switch both the current definition of “startup” relied on and the proposed definition you plan to rely on;
 - (B) Your request arrives to the Administrator at least 30 calendar days prior to the date that the switch is proposed to occur;
 - (C) You revise and submit all other applicable plans, e.g., monitoring and emissions averaging, with your submissions;
 - (D) You maintain records of all information regarding your choice of the definition of “startup”, and
 - (E) You begin to use the revised definition of “startup” in the next reporting period after receipt of written acknowledgement from the Administrator of the switch.”

“(f) You must submit the notifications in §63.10000 (h) (2) and (i) (2) that may apply to you by the dates specified.”

§ 63.10031 - What reports must I submit and when?

“(a) You must submit each report in Table 8 to this subpart that applies to you. If you are required to (or elect to) continuously monitor Hg and/or HCl and/or HF emissions, you must also submit the electronic reports required under appendix A and/or appendix B to the subpart, at the specified frequency.”

“(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 8 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.9984 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in § 63.9984. – No Longer Applicable

(2) The first compliance report must be postmarked or submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in § 63.9984. – No Longer Applicable

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.”

“(c) The compliance report must contain the information required in paragraphs (c)(1) through (49) of this section.

(1) The information required by the summary report located in 63.10(e)(3)(vi).

(2) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or your basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.

(3) Indicate whether you burned new types of fuel during the reporting period. If you did burn new types of fuel you must include the date of the performance test where that fuel was in use.

(4) Include the date of the most recent tune-up for each ~~unit~~ EGU. ~~The date of the tune-up is the date the tune-up provisions specified in §63.10021 (e) (6) and (7) were completed. subject to the requirement to conduct a performance tune-up according to § 63.10021(e). Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled unit shutdown~~

(5) Should you choose to rely on paragraph (2) of the definition of “startup” in §63.10042 for your EGU, For each instance of startup or shutdown you shall :

(i) Include the maximum clean fuel storage capacity and the maximum hourly heat input that can be provided for each clean fuel determined according to the requirements of §63.10032(f).

(ii) Include the information required to be monitored, collected, or recorded according to the requirements of §63.10020(e).

(iii) If you choose to use CEMS ~~for compliance purposes to demonstrate compliance with numerical limits~~, include hourly average CEMS values and hourly average flow ~~rates~~ **values during startup periods or shutdown periods**. Use units of milligrams per cubic meter for PM CEMS **values**, micrograms per cubic meter for Hg CEMS **values**, and ppmv for HCl, HF, or **SO₂ CEMS values**. Use units of standard cubic meters per hour on a wet basis for flow ~~rates~~ **values**.

(iv) If you choose to use a separate sorbent trap measurement system for startup or shutdown reporting periods, include hourly average mercury concentration **values** in terms of micrograms per cubic meter.”

(6) You must report emergency bypass information annually from EGUs with LEE status.

(7) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during the test, if applicable. If you are conducting stack tests once every 3 years to maintain LEE status, consistent with §63.10006(b), the date of each stack test conducted during the previous 3 years, a comparison of emission level you achieved in each stack test conducted during the previous 3 years to the 50 percent emission limit threshold required in §63.10005(h)(1)(i), and a statement as to whether there have been any operational changes since the last stack test that could increase emissions.

(8) A certification.

(9) If you have a deviation from any emission limit, work practice standard, or operating limit, you must also submit a brief description of the deviation, the duration of the deviation, emissions point identification, and the cause of the deviation.”

“(d) For each excess emissions occurring at an affected source where you are using a CMS to comply with that emission limit or operating limit, you must include the information required in § 63.10(e)(3)(v) in the compliance report specified in section (c).”

“(e) Each affected source that has obtained a Title V operating permit pursuant to part 70 or part 71 of this chapter must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 8 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. “

“(f) ~~As of January 1, 2012~~ **On or after July 1, 2020**, and within 60 days after the date of completing each performance test, you must submit the ~~results of the performance tests~~ **reports** required by this subpart to EPA’s WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI)

that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using those test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority."

"(1) On or after July 1, 2020, ~~W~~within 60 days after the date of completing each CEMS (SO₂, PM, HCl, HF, and Hg) performance evaluation test, as defined in § 63.2 and required by this subpart, you must submit the relative accuracy test audit (RATA) data (or, for PM CEMS, RCA and RRA data) required by this subpart to EPA's WebFIRE database by using ~~the Compliance and Emissions Data Reporting Interface (CEDRI)~~ that is accessed through EPA's ~~Central Data Exchange (CDX)~~ (www.epa.gov/cdx). The RATA data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (<http://www.epa.gov/ttn/chief/ert/index.html>). Only RATA data compounds listed on the ERT Web site are subject to this requirement. Owners or operators who claim that some of the information being submitted for RATAs is confidential business information (CBI) shall submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) by registered letter to EPA and the same ERT file with the CBI omitted to EPA via CDX as described earlier in this paragraph. The compact disk or other commonly used electronic storage media shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. At the discretion of the delegated authority, owners or operators shall also submit these RATAs to the delegated authority in the format specified by the delegated authority. Owners or operators shall submit calibration error testing, drift checks, and other information required in the performance evaluation as described in § 63.2 and as required in this chapter."

"(3) Reports for an SO₂ CEMS, a Hg CEMS or sorbent trap monitoring system, an HCl or HF CEMS, and any supporting monitors for such systems (such as a diluent or moisture monitor) shall be submitted using the ECMPS Client Tool, as provided for in Appendices A and B to this subpart and § 63.10021(f).

(4) On or after July 1, 2020, ~~S~~submit the compliance reports required under paragraphs (c) and (d) of this section and the notification of compliance status required under § 63.10030(e) to EPA's WebFIRE database by using the ~~Compliance and Emissions Data Reporting Interface (CEDRI)~~ that is accessed through EPA's ~~Central Data Exchange (CDX)~~ (www.epa.gov/cdx). You must use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format.

(5) All reports required by this subpart not subject to the requirements in paragraphs (f) ~~introductory text and~~ (f)(1) through (4) of this section must be sent to the Administrator at the appropriate address

listed in § 63.13. If acceptable to both the Administrator and the owner or operator of a **EGU source**, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to paragraphs (f) introductory text and (f)(1), ~~(2), and~~ through (34) of this section in paper format.

(6) Prior to ~~July 1, 2020~~ **April 16, 2017**, all reports subject to electronic submittal in paragraphs (f) introductory text, (f)(1), (2), and (4) shall be submitted to the EPA at the frequency specified in those paragraphs in electronic portable document format (PDF) using the ECMPS Client Tool. Each PDF version of a submitted report must include sufficient information to assess compliance and to demonstrate that the testing was done properly. The following data elements must be entered into the ECMPS Client Tool at the time of submission of each PDF file:”

- (i) The facility name, physical address, mailing address (if different from the physical address), and county;
- (ii) The ORIS code (or equivalent ID number assigned by EPA's Clean Air Markets Division (CAMD)) and the Facility Registry System (FRS) ID;
- (iii) The EGU (or EGUs) to which the report applies. Report the EGU IDs as they appear in the CAMD Business System;
- (vi) The identification of each emission point to which the report applies. An “emission point” is a point at which source effluent is released to the atmosphere, and is either a dedicated stack that serves one of the EGUs identified in paragraph (f)(6)(iii) of this section or a common stack that serves two or more of those EGUs. To identify an emission point, associate it with the EGU or stack ID in the CAMD Business system or the electronic monitoring plan (e.g., “Unit 2 stack,” “common stack CS001,” or “multiple stack MS001”);
- (vii) The rule citation (e.g., §63.10031(f)(1), §63.10031(f)(2), etc.) for which the report is showing compliance;
- (viii) The pollutant(s) being addressed in the report;
- (ix) The reporting period being covered by the report (if applicable);
- (x) The relevant test method that was performed for a performance test (if applicable);
- (xi) The date the performance test was conducted (if applicable); and
- (xii) The responsible official's name, title, and phone number.”

“ (g) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded.”

TABLE 8 TO SUBPART UUUUU OF PART 63—REPORTING REQUIREMENTS

As stated in §63.10031, you must comply with the following requirements for reports:

You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. Information required in §63.10031(c)(1) through (49); and b. If there are no deviations from any emission limitation (emission limit and	Semiannually according to the requirements in §63.10031(b).

You must submit a . . .	The report must contain . . .	You must submit the report . . .
	operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 3 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, and operating parameter monitoring systems, were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and	
	c. If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in §63.10031(d). If there were periods during which the CMSs, including continuous emissions monitoring systems and continuous parameter monitoring systems, were out-of-control, as specified in §63.8(c)(7), the report must contain the information in §63.10031(e)	

Table 9 to Subpart UUUUU of Part 63—Applicability of General Provisions to Subpart UUUUU

As stated in §63.10040, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Applies to subpart UUUUU
§63.1	Applicability	Yes.
§63.2	Definitions	Yes. Additional terms defined in §63.10042.
§63.3	Units and Abbreviations	Yes.
§63.4	Prohibited Activities and Circumvention	Yes.
§63.5	Preconstruction Review and Notification Requirements	Yes.
§63.6(a), (b)(1)- (b) through (5), (b)(7), (c), (f)(2) and -(3), (g) , (h)(2) through (h) (9), (i), (j)	Compliance with Standards and Maintenance Requirements	Yes.

Citation	Subject	Applies to subpart UUUUU
§63.6(e)(1)(i)	General Duty to minimize emissions	No. See §63.10000(b) for general duty requirement.
§63.6(e)(1)(ii)	Requirement to correct malfunctions ASAP	No.
§63.6(e)(3)	SSM Plan requirements	No.
§63.6(f)(1)	SSM exemption	No.
§63.6(g)	Compliance with Standards and Maintenance Requirements, Use of an alternative non-opacity emission standard	Yes. See §63.10011(g)(4) and §63.10021(h)(4) for additional requirements
§63.6(h)(1)	SSM exemption	No.
§63.7(a), (b), (c), (d), (e)(2)-(e)(9), (f), (g), and (h)	Performance Testing Requirements	Yes.
§63.7(e)(1)	Performance testing	No. See §63.10007.
§63.8	Monitoring Requirements	Yes.
§63.8(c)(1)(i)	General duty to minimize emissions and CMS operation	No. See §63.10000(b) for general duty requirement.
§63.8(c)(1)(iii)	Requirement to develop SSM Plan for CMS	No.
§63.8(d)(3)	Written procedures for CMS	Yes, except for last sentence, which refers to an SSM plan. SSM plans are not required.
§63.9	Notification requirements	Yes, except (1) for the 60-day notification prior to conducting a performance test in §63.9(e); instead use a 30-day notification period per §63.10030(d)-, (2) the notification of the CMS performance evaluation in §63.9(g)(1) is limited to RATAs, and (3) the information required per §63.9(h)(2)(i); instead provide the information required per §63.10030(e)(1) through (e)(6) and (e)(8).
§63.10(a), (b)(1), (c), (d)(1) and - (2), (e), and (f)	Record keeping and Reporting Requirements	Yes, except for the requirements to submit written reports under §63.10(e)(3)(v).
§63.10(b)(2)(i)	Record keeping of occurrence and duration of startups and shutdowns	No.
§63.10(b)(2)(ii)	Record keeping of malfunctions	No. See §63.10001 for record keeping of (1) occurrence and duration and (2) actions taken during malfunction.

Citation	Subject	Applies to subpart UUUUU
§63.10(b)(2)(iii)	Maintenance records	Yes.
§63.10(b)(2)(iv)	Actions taken to minimize emissions during SSM	No.
§63.10(b)(2)(v)	Actions taken to minimize emissions during SSM	No.
§63.10(b)(2)(vi)	Record keeping for CMS malfunctions	Yes.
§63.10(b)(2)(vii) through -(ix)	Other CMS requirements	Yes.
§63.10(b)(3), and (d)(3) through (5)		No.
§63.10(c)(7)	Additional record keeping requirements for CMS— identifying exceedances and excess emissions	Yes.
§63.10(c)(8)	Additional record keeping requirements for CMS— identifying exceedances and excess emissions	Yes.
§63.10(c)(10)	Recording nature and cause of malfunctions	No. See §63.10032(g) and (h) for malfunctions record keeping requirements.
§63.10(c)(11)	Recording corrective actions	No. See §63.10032(g) and (h) for malfunctions record keeping requirements.
§63.10(c)(15)	Use of SSM Plan	No.
§63.10(d)(5)	SSM reports	No. See §63.10021(h) and (i) for malfunction reporting requirements.
§63.11	Control Device Requirements	No.
§63.12	State Authority and Delegation	Yes.
§63.13 through -63.16	Addresses, Incorporation by Reference, Availability of Information, Performance Track Provisions	Yes.
§63.1(a)(5), (a)(7) through - (a) (9), (b)(2), (c)(3) and -(4), (d), 63.6(b)(6), (c)(3) and -(e) (4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv), 63.8(a)(3), 63.9(b)(3), (h)(4), 63.10(c)(2) through -(4), (c)(9)	Reserved	No.

APPENDIX B

2018 EMISSIONS CERTIFICATION REPORT



11600 Mexico Farms Road, SE • Cumberland, MD 21502 • (301) 777-0055 • FAX (301) 777-8772

Maryland Department of the Environment
Air and Radiation Management Administration
1800 Washington Boulevard, Suite 715
Baltimore, Maryland 21230-1720
Attention: Laramie Daniel, Compliance Program

March 29, 2019

Subject: AES Warrior Run, 2018 Emissions Certification Report

Dear Ms Daniel:

Enclosed are two copies of the 2018 Emissions Certification Report for AES Warrior Run.

The following are reported in accordance with Term E(7)(c) of Permit-to-Construct No. 001-3-0127, 0136 & 0067A as well as IV 3.5F, and IV 8.5B of Part 70 Permit No. 24-001-00203:

- Annual hours of operation
 - For the ACFB = 7305 hr
 - For each limestone dryer = 2036 hr for System 1 and 2011 hr for System 2
 - For EBFP = 22 hr
- Records of fuel use for space heaters (see attached Limestone Gas Meter Reading Report; 13 pages)

In addition, in accordance with Term VI of Part 70 Permit No. 24-001-00203, previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid.


The following is the certification by a responsible official as to truth, accuracy, and completeness:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."


Peter Bajc, President

Please contact me with any questions or concerns at (301) 777-0055 x 1105 or at Kara.Hawkins@aes.com.

Sincerely,


Kara Hawkins
AES Warrior Run

MARYLAND DEPARTMENT OF THE ENVIRONMENT
 1800 Washington Boulevard, Suite 715 • Baltimore Maryland 21230-1720
 410-537-3000 • 1-800-633-6101 • http://www.mde.state.md.us
 Air and Radiation Management Administration
 Air Quality Compliance Program
 (410) 537-3220

FORM 1

GENERAL FACILITY INFORMATION
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2018

A. FACILITY IDENTIFICATION	Do Not Write in This Space	
Facility Name AES Warrior Run Limited Partnership	Date Received Regional	
Address 11600 Mexico Farms Road, SE	Date Received State	
City Cumberland County Allegany Zip Code 21502	AIRS Code	
B. Briefly describe the major function of the facility	FINDS Code	
Electric Generation	SIC Code	
	Facility Number	
	TEMPO ID:	
C. SEASONAL PRODUCTION (% if applicable) NA	Reviewed by:	
Winter Spring Summer Fall (Dec.-Feb.) (Mar.-May) (June-Aug.) (Sept.-Nov.)	Name Date	
D. Explain any increase or decreases from previous calendar year for each registration at this facility.		
Operations for entire year		
E. CONTROL DEVICE INFORMATION (for NOx and VOC sources only)		
Control Device	Capture Efficiency	Removal Efficiency
Limestone Injection	100%	95+%
SNCR	100%	40%
Fabric Filter	100%	99.90%

I am familiar with the facility and the installations and sources for which this report is submitted. I have personally examined the information in this report, which consists of ___ pages (including attachments), and certify that the information is correct to the best of my knowledge.

Peter Bajc	President	29-Mar-18
Name (Print/Type)	Title	Date
		301-777-0055 Ext 1101
Signature		Telephone

1/9/08

FORM 2

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership

Facility ID: 001-00203

Pollutant: SO₂

Equipment Description/ Registration No.	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD		Operating Schedule		Emissions Methods
				Tons/yr	Lbs/dy	Hrs/dy	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
ACFB 001-3-0127	1-01- 002-17	Coal	s f	1047.60	6883.95	24.00	7.00	43.48	304.36	Not Req'd	N/A	N/A	N/A	C1
ACFB 001-3-0127	1-01- 002-17	Diesel	s f	0.20	131.82	9.67	1.50	2.00	3.00	Not Req'd	N/A	N/A	N/A	C1
EBFP 001-9-0081	2-01- 001-02	Diesel	s f	0.00	0.01	0.50	1.00	43.00	43.00	Not Req'd	N/A	N/A	N/A	C1
Limestone Dryers 001-6-0136	3-90- 006-89	NG	s f	0.02	0.11	6.77	7.00	42.71	289.00	Not Req'd	N/A	N/A	N/A	C1, C3
Space Heaters 001-9-0243/0244	1-05- 001-06	NG	s f	0.00	0.01	24.00	4.00	8.00	32.00	Not Req'd	N/A	N/A	N/A	C3
			s											
			f											
			s											
			f											
			s											
			f											
			s											
			f											
			s											
			f											
Total				1,047.81	6,884.08									

6 - Stack Emissions f - Fugitive Emissions Daily emissions (lbs/dy) are lbs/operating day of the source.

TOSD - Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April - September). This section needs to be completed only for VOC and NOx sources.

Ex: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method

- A1 - U.S. EPA Reference Method
- A2 - Other Particulate Sampling Train
- A3 - Liquid Absorption Technique
- A4 - Solid Absorption Technique
- A5 - Freezing Out Technique
- A6 - Other, Specify

- C1 - User calculated based on source test or other measurements
- C2 - User Calculated based on material balance using engineering knowledge of the process
- C3 - User calculated based AP-42
- C4 - User calculated by best guess/engineering judgment

- C5 - User calculations based on a State or local agency emission factor
- C6 - New construction, not operational
- C7 - Source closed, operation ceased
- C8 - Computer calculated based on standard

1/9/08

**CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: NO_x

Equipment Description/ Registration No.	SCC Number*	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD	Operating Schedule		Emissions Methods	
				Tons/yr	Lbs/dy	Hrs/dy	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start		End
ACFB 001-3-0127	1-01- 002-17	Coal	s f	494.80	3251.41	24.00	7.00	43.48	304.36	3251.41	24.00	N/A	N/A	C1
ACFB 001-3-0127	1-01- 002-17	Diesel	s f	0.67	445.60	9.67	1.50	2.00	3.00	445.60	9.67	N/A	N/A	C1
EBFP 001-9-0081	2-01- 001-02	Diesel	s f	0.03	1.62	0.50	1.00	43.00	43.00	1.62	0.50	N/A	N/A	C1
Limestone Dryers 001-8-0136	3-90- 008-89	NG	s f	0.22	1.48	6.77	7.00	42.71	299.00	1.48	6.77	N/A	N/A	C1, C3
Space Heaters 001-6-0243/0244	1-05- 001-06	NG	s f	0.02	1.50	24.00	4.00	8.00	32.00	1.50	24.00	N/A	N/A	C3
			s f											
			s f											
			s f											
			s f											
			s f											
			s f											
			s f											
Total				495.75	3,256.01					3,256.01				

s - Stack Emissions f - Fugitive Emissions Daily emissions (lbs/dy) are lbs/operating day of the source.

TOSD - Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April - September). This section needs to be completed only for VOC and NOx sources.

Fac: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method
 A1 - U.S. EPA Reference Method
 A2 - Other Particulate Sampling Train
 A3 - Liquid Absorption Technique
 A4 - Solid Absorption Technique
 A5 - Freezing Out Technique
 A6 - Other, Specify

C1 - User calculated based on source test or other measurements
 C2 - User Calculated based on material balance using engineering knowledge of the process
 C3 - User calculated based AP-42
 C4 - User calculated by best guess/engineering judgment

O5 - User calculations based on a State or local agency emission factor
 O6 - New construction, not operational
 O7 - Source closed, operation as used
 O8 - Computer calculated based on standard

**CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: CO

Equipment Description/ Registration No.	SCC Number*	Fuel	Actual Emissions		Operating Schedule (Actual)				TOSD Lbs/dy	Operating Schedule			Emissions Methods	
			Tons/yr	Lbs/dy	Hrs/dy	Dys/wk	Wk/yr	Days/yr		Hrs/dy	Start	End		
ACFB	1-01-002-17	Coal	s	822.64	5405.72	24.00	7.00	43.48	304.36	Not Req'd	N/A	N/A	N/A	C1
001-3-0127	002-17		f											
ACFB	1-01-002-17	Diesel	s	0.14	92.83	9.67	1.50	2.00	3.00	Not Req'd	N/A	N/A	N/A	C1
001-3-0127	002-17		f											
EBFP	2-01-001-02	Diesel	s	0.00	0.18	0.50	1.00	43.00	43.00	Not Req'd	N/A	N/A	N/A	C1
001-9-0081	001-02		f											
Limestone Dryers	3-90-008-89	NG	s	0.06	0.40	6.77	7.00	42.71	299.00	Not Req'd	N/A	N/A	N/A	C1, C3
001-6-0136	008-89		f											
Space Heaters	1-05-001-06	NG	s	0.02	1.26	24.00	4.00	8.00	32.00	Not Req'd	N/A	N/A	N/A	C3
001-6-0243/0244	001-06		f											
			s											
			f											
			s											
			f											
			s											
			f											
			s											
			f											
			s											
			f											
			s											
			f											
Total				822.87	5,407.57									

S - Stack Emissions f - Fugitive Emissions Daily emissions (lbs/dy) are lbs/operating day of the source.

TOSD - Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during extended periods of direct sunlight and warm temperatures (April - September). This section needs to be completed only for VOC and NOx sources.

Fuel: include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method

- A1 - U.S. EPA Reference Method
- A2 - Other Particulate Sampling
- Train
- A3 - Liquid Absorption Technique
- A4 - Solid Absorption Technique
- A5 - Freezing Out Technique
- A6 - Other, Specify

- C1 - User calculated based on source test or other measurements
- C2 - User Calculated based on material balance using engineering knowledge of the process
- C3 - User calculated based AP-42
- C4 - User calculated by best guess/engineering judgment

- C5 - User calculated based on a State or local agency emission factor
- C6 - Re-construction, not operational
- C7 - Source closed, operation ceased
- C8 - Computer calculated based on standard

1/9/08

FORM 2

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: VOC

Equipment Description/ Registration No.	SCC Number*	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD		Operating Schedule		Estimation Method
				Tons/yr	Lbs/dy	Hrs/dy	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
ACFB 001-3-0127	1-01- 002-17	Coal	s f	1.09	7.13	24.00	7.00	43.48	304.36	7.13	24.0	N/A	N/A	C1
ACFB 001-3-0127	1-01- 002-17	Diesel	s f	0.01	3.71	9.67	1.50	2.00	3.00	3.71	9.7	N/A	N/A	C1
EBFP 001-9-0081	2-01- 001-02	Diesel	s f	0.00	0.01	0.50	1.00	43.00	43.00	0.01	0.5	N/A	N/A	C1
Limestone Dryers 001-6-0136	3-90- 006-89	NG	s f	0.00	0.01	6.77	7.00	42.71	299.00	0.01	6.8	N/A	N/A	C1, C3
Space Heaters 001-6-0243/0244	1-05- 001-06	NG	s f	0.00	0.08	24.00	4.00	8.00	32.00	0.08	24.0	N/A	N/A	C3
60000 gal Fuel Tank 001-3-0127	3-90-300 03		s f	0.00	0.03	24.00	7.00	52.00	365.00	0.03	24.0	N/A	N/A	C3
10000 gal Fuel Tank 001-6-0136	3-90-300 03		s f	0.00	0.00	24.00	7.00	52.00	365.00	0.00	24.0	N/A	N/A	C3
CO2 Plant Solvent Tank 001-3-0127	4-07-032- 07		s f	0.00	0.00	24.00	7.00	52.00	365.00	0.00	24.0	N/A	N/A	C3
Waste Tank 001-3-0127			s f	0.00	0.00	24.00	7.00	52.00	365.00	0.00	24.0	N/A	N/A	C4
CO2 Plant Vent 001-3-0127	3-01-034- 10		s f	0.50	4.09	24.00	7.00	35.00	245.00	4.09	24.0	N/A	N/A	C1, C4
			s f											
Total				1.60	11.36					11.36				

S = Stack Emissions F = Fugitive Emissions Daily emissions (lbs/dy) are for operating day of the source.

TOSD - Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April - September). This section needs to be completed only for VOC and NOx sources.

Fuel: include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method

- A1 - U.S. EPA Reference Method
- A2 - Other Particulate Sampling Train
- A3 - Liquid Absorption Technique
- A4 - Solid Absorption Technique
- A5 - Freezing Out Technique
- A9 - Other, Specify

- C1 - User calculated based on source test or other measurements
- C2 - User Calculated based on material balance using engineering knowledge of the process
- C3 - User calculated based AP-42
- C4 - User calculated by best guess/engineering judgment

- C5 - User calculations based on a State or local agency emission factor
- C6 - New construction, not operational
- C7 - Source closed, operation ceased
- C8 - Computer calculated based on standard

1/9/08

Particulate Matter

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership

Facility ID: 001-00203

Pollutant: PM

Equipment Description/ Registration No.	SCC Number	Fuel	PM – Filterable		PM 10 – Filterable		PM 2.5 – Filterable		PM Condensable		Operation Days/yr	Emissions Methods
			Tons/yr	Lbs/day	Tons/yr	Lbs/day	Tons/yr	Lbs/day	Tons/yr	Lbs/day		
ACFB 001-3-0127	1-01- 002-17	Coal	S F	22.62 148.63							304	C1
ACFB 001-3-0127	1-01- 002-17	Diesel	S F	0.01 9.10	0.01 5.46	0.00 2.37	0.05 35.61				3	C1
EBFP 001-9-0081	2-01- 001-02	Diesel	S F	0.00 0.05	0.00 0.04	0.00 0.04	0.00 0.01				43	C1
Limestone Dryers/Crushers 001-6-0136	3-90- 006-89	NG	S F	0.46 3.07	0.23 1.54	0.07 0.46	0.02 0.12				299	C1
Limestone Truck Unload 001-6-0136			S F	0.32 3.09	0.16 1.57	0.05 0.46	0.00 0.00				209	C2
Limestone Storage Silo 001-6-0136	2-53- 001-100		S F	0.28 1.85	0.14 0.94	0.04 0.28	0.00 0.00				304	C2
Coal Truck Unload 001-3-0127	3-05- 304-3		S F	1.08 8.64	0.55 4.41	0.16 1.30	0.00 0.00				249	C2
Coal Crushing & Reclaim 001-3-0127			S F	0.42 2.78	0.22 1.42	0.06 0.42	0.00 0.00				304	C2
Coal Storage Silos 001-3-0127	3-05- 102-3		S F	0.66 4.32	0.34 2.20	0.10 0.65	0.00 0.00				304	C2
Bed Ash Day Bin 001-3-0127			S F	0.19 1.23	0.16 1.05	0.06 0.37	0.00 0.00				304	C2
Bed Ash Silo 001-3-0127			S F	0.14 0.93	0.12 0.79	0.04 0.28	0.00 0.00				304	C2
Fly Ash Silo 001-3-0127			S F	0.38 2.47	0.32 2.10	0.11 0.74	0.00 0.00				304	C2
Space Heaters 001-6-0243/0244	1-05- 001-08	NG	S F	0.00 0.03	0.00 0.03	0.00 0.03	0.00 0.09				32	C3
Fuel Blending Station 001-6-0304			S F	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00				0	C3
Total				26.55 177.08	15.82 105.26	6.58 43.66	88.61 581.98					

S - Stack Emissions F - Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

Fuel: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method

- A1-U.S. EPA Reference Method
- A2-Other Particulate Sampling Train
- A3-Liquid Absorption Technique
- A4-Solid Absorption Technique
- A5-Frozzing Out Technique
- A9-Other, Specify

- C1-User calculated based on source test or other measurement
- C2-User calculated based on material balance using engineering knowledge of the process
- C3-User calculated based on AP-42
- C4-User calculated by best guess/engineering judgment

- C5-User calculated based on a State or local agency emission factor
- C6-New construction, not operational
- C7-Source closed, operation ceased
- C8-Computer calculated based on standard

2/21/08

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Arsenic

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	7.78E-04	5.11E-03	2.13E-04	B	99.90%
EBFP 001-9-0018	5.60E-08	2.60E-06	5.23E-06		
Limestone Dryers 001-6-0136	3.20E-07	2.14E-06	3.17E-07	B	99.90%
Space Heaters 001-6-0243/0244	4.81E-08	3.01E-06	3.76E-07		
TOTALS		7.79E-04	5.12E-03	2.19E-04	

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorbtion
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Beryllium

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	1.08E-04	7.10E-04	2.96E-05	B	99.90%
EBFP 001-9-0018	4.20E-08	1.95E-06	3.93E-06		
Limestone Dryers 001-6-0136	1.92E-08	1.29E-07	1.90E-08	B	99.90%
Space Heaters 001-6-0243/0244	2.89E-09	1.80E-07	2.25E-08		
TOTALS					
	1.08E-04	7.12E-04	3.35E-05		

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorbition
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Cadmium

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	7.68E-04	5.05E-03	2.10E-04	B	99.90%
EBFP 001-9-0018	4.20E-08	1.95E-06	3.93E-06		
Limestone Dryers 001-6-0136	1.76E-06	1.18E-05	1.74E-06	B	99.90%
Space Heaters 001-6-0243/0244	2.65E-07	1.65E-05	2.07E-06		
TOTALS					
	7.70E-04	5.08E-03	2.18E-04		

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorption
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/2008

FORM 4

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Chromium

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	7.25E-03	4.76E-02	1.98E-03	B	99.90%
EBFP 001-9-0018	4.20E-08	1.95E-06	3.93E-06		
Limestone Dryers 001-6-0136	2.24E-06	1.50E-05	2.22E-06	B	99.90%
Space Heaters 001-6-0243/0244	3.37E-07	2.10E-05	2.63E-06		
TOTALS		7.25E-03	4.77E-02	1.99E-03	

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorbition
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Cobalt

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	1.12E-03	7.35E-03	3.06E-04	B	99.90%
Limestone Dryers 001-6-0136	1.35E-07	9.00E-07	1.33E-07	B	99.90%
Space Heaters 001-6-0243/0244	2.02E-08	1.26E-06	1.58E-07		
TOTALS					
	1.12E-03	7.35E-03	3.06E-04		

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorption
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Lead

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	2.26E-03	1.49E-02	6.20E-04	B	99.90%
EBFP 001-9-0018	1.26E-07	5.86E-06	1.18E-05		
Limestone Dryers 001-6-0136	8.01E-07	5.36E-06	7.91E-07	B	99.90%
Space Heaters 001-6-0243/0244	1.20E-07	7.52E-06	9.39E-07		
TOTALS					
	2.27E-03	1.49E-02	6.34E-04		

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
S = Scrubber
B = Baghouse
ESP = Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorption
O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Manganese

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	5.22E-03	3.43E-02	1.43E-03	B	99.90%
EBFP 001-9-0018	8.40E-08	3.91E-06	7.85E-06		
Limestone Dryers 001-6-0136	6.09E-07	4.07E-06	6.01E-07	B	99.90%
Space Heaters 001-6-0243/0244	9.14E-08	5.71E-06	7.14E-07		
TOTALS	5.22E-03	3.43E-02	1.44E-03		

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorption
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Nickel

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	7.64E-03	5.02E-02	2.09E-03	B	99.90%
EBFP 001-9-0018	4.20E-08	1.95E-06	3.93E-06		
Limestone Dryers 001-6-0136	3.36E-06	2.25E-05	3.32E-06	B	99.90%
Space Heaters 001-6-0243/0244	5.05E-07	3.16E-05	3.95E-06		
TOTALS		7.64E-03	5.02E-02	2.10E-03	

* Please attach all calculations
 * See Attachment 1 for the minimum reporting values.
 **Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorption
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Acetaldehyde

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	1.66E-01	1.09E+00	4.53E-02		
BBFP 001-9-0018	1.07E-05	4.99E-04	1.00E-03		
TOTALS		1.66E-01	1.09E+00	4.63E-02	

* Please attach all calculations
* See Attachment 1 for the minimum reporting values.
****Control Device**
S = Scrubber
B = Baghouse
ESP = Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbition
O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Benzene

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	3.78E-01	2.48E+00	1.03E-01		
EBFP 001-9-0018	1.31E-05	6.08E-04	1.22E-03		
Limestone Dryers 001-6-0136	3.36E-06	2.25E-05	3.32E-06		
Space Heaters 001-6-0243/0244	5.05E-07	3.16E-05	3.95E-06		
TOTALS					
	3.78E-01	2.48E+00	1.05E-01		

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorption
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Benzyl chloride

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	2.03E-01	1.34E+00	5.57E-02		
TOTALS					

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorbition
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Chloroform

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	1.71E-02	1.13E-01	4.69E-03		
TOTALS	1.71E-02	1.13E-01	4.69E-03		

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorption
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Dimethyl sulfate

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	1.39E-02	9.16E-02	3.82E-03		
TOTALS	1.39E-02	9.16E-02	3.82E-03		

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorbtion
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

01/09/08

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Ethyl Chloride

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	1.22E-02	8.02E-02	3.34E-03		
TOTALS	1.22E-02	8.02E-02	3.34E-03		

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorbition
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Ethylene dichloride

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	1.16E-02	7.64E-02	3.18E-03		
TOTALS	1.16E-02	7.64E-02	3.18E-03		

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorbtion
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Formaldehyde

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	7.06E-02	4.64E-01	1.93E-02		
EBFP 001-9-0018	1.65E-05	7.68E-04	1.54E-03		
Limestone Dryers 001-6-0136	1.20E-04	8.03E-04	1.19E-04		
Space Heaters 001-6-0243/0244	1.80E-05	1.13E-03	1.41E-04		
TOTALS		7.08E-02	4.67E-01	2.11E-02	

* Please attach all calculations
* See Attachment 1 for the minimum reporting values.
**Control Device
S = Scrubber
B = Baghouse
ESP = Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbition
O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Methyl bromide

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	4.65E-02	3.05E-01	1.27E-02		
TOTALS					

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorbtion
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 4

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Methyl chloride

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	1.54E-01	1.01E+00	4.22E-02		
TOTALS					

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorbtion
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Methyl hydrazine

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	4.94E-02	3.25E-01	1.35E-02		
TOTALS	4.94E-02	3.25E-01	1.35E-02		

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorbition
 O = Other

1 Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: Propionaldehyde

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	1.10E-01	7.25E-01	3.02E-02		
TOTALS	1.10E-01	7.25E-01	3.02E-02		

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorbtion
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: HCl

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	1.01E+01	6.67E+01	2.78E+00	O	95+%
TOTALS		1.01E+01	6.67E+01	2.78E+00	

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorption
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: HF

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	3.64E-01	2.39E+00	9.98E-02	O	95+%
TOTALS	3.64E-01	2.39E+00	9.98E-02		

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorbition
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: HCN

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB 001-3-0127	6.21E-01	4.08E+00	1.70E-01	O	95+%
TOTALS	6.21E-01	4.08E+00	1.70E-01		

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorbition
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership; Facility ID: 001-00203 Pollutant: Mercury

Equipment Description/ Registration Number ¹	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
ACFB	3.88E-05	2.54E-04	1.08E-05		
001-3-0127					
EBFP	1.40E-09	6.51E-08	1.31E-07		
001-9-0018					
Limestone Dryers	4.18E-07	2.79E-06	4.12E-07		
001-6-0136					
Space Heaters	6.25E-08	3.91E-06	4.89E-07		
001-6-0243/0244					
TOTALS	3.91E-05	2.60E-04	1.16E-05		

* Please attach all calculations

* See Attachment 1 for the minimum reporting values.

**Control Device
 S = Scrubber
 B = Baghouse
 ESP = Electrostatic Precipitator
 A = Afterburner
 C = Condenser
 AD = Adsorption
 O = Other

¹ Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 5

**BILLABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203

Chemical Name	CAS Number		Actual Emissions			Estimation Method
			Tons/year	Lbs/day	Lbs/hr	
carbon disulfide	75-15-0	S				
		F				
carbon sulfide	463-58-1	S				
		F				
chlorine	7782-50-5	S				
		F				
cyanide compounds	57-12-5	S	6.21E-01	4.08E+00	1.70E-01	C3
		F				
hydrochloric acid	7647-01-0	S	1.01E+01	6.67E+01	2.78E+00	C1
		F				
hydrogen fluoride	7664-39-3	S	3.64E-01	2.39E+00	9.98E-02	C1
		F				
methyl chloroform	71-55-6	S				
		F				
methylene chloride	75-09-2	S				
		F				
perchloroethylene	127-18-4	S				
		F				
phosphine	7803-51-2	S				
		F				
titanium tetrachloride	7550-45-0	S				
		F				
TOTALS			11.13	73.15	3.05	

Emission Estimation Method

- A1-U.S. EPA Reference Method
- A2-Other Particulate Sampling train
- A3-Liquid Absorption Technique
- A4-Solid Adsorption Technique
- A5-Freezing Out Technique
- A9-Other, Specify

- C1-User calculated based on source test or other measurement
- C2-User calculated based on material balance using engineering knowledge of the process
- C3-User calculated based on AP-42
- C4-User calculated by best guess/engineering judgment
- C5-User calculated based on a State or local agency factor
- C6-New construction, not operational
- C7-Source closed, operation ceased
- C8-Computer calculated based on standards

This form to include only the eleven chemicals identified.

S- Stack Emissions F- Fugitive Emissions Daily emissions (lb/day) are lb/operating day of the source
PLEASE NOTE: Be sure to attach all data and calculations necessary to support the emission figures shown above.

3/9/09

**GREENHOUSE GAS AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership **Facility ID:** 001-00203 **Pollutant:** CO₂ *

Equipment Description/ Registration Number ¹	Actual Emissions		
	Tons/yr	Lbs/day	Lbs/hr
ACFB 001-3-0127	1325907.80	8712187.40	363007.81
EBFP 001-9-0081	2.25	104.67	210.31
Limestone Dryers 001-8-0136	192.43	1287.18	190.19
Space Heaters 001-6-0243/0244	28.90	1806.18	75.26
TOTALS	1326131.38	8715385.43	363483.57

This form must be used to report **Greenhouse gas emissions:**

- carbon dioxide (CO₂)
- methane (CH₄)
- nitrous oxide (N₂O)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulfur hexafluoride (SF₆)

* Use a separate form for each pollutant.

* Please attach all calculations.

¹Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/15/08

**GREENHOUSE GAS AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership **Facility ID:** 001-00203 **Pollutant:** CH₄ *

Equipment Description/ Registration Number ¹	Actual Emissions		
	Tons/yr	Lbs/day	Lbs/hr
ACFB 001-3-0127	156.74	1029.90	42.91
EBFP 001-9-0081	0.00	0.00	0.01
Limestone Dryers 001-8-0136	0.00	0.02	0.00
Space Heaters 001-6-0243/0244	0.00	0.03	0.00
TOTALS	156.74	1029.96	42.93

This form must be used to report Greenhouse gas emissions:

- carbon dioxide (CO₂)
- methane (CH₄)
- nitrous oxide (N₂O)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulfur hexafluoride (SF₆)

* Use a separate form for each pollutant.
* Please attach all calculations.

¹Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/15/08

**GREENHOUSE GAS AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2018

Facility Name: AES WR Ltd Partnership Facility ID: 001-00203 Pollutant: N₂O *

Equipment Description/ Registration Number ¹	Actual Emissions		
	Tons/yr	Lbs/day	Lbs/hr
ACFB 001-3-0127	22.80	149.81	6.24
EBFP 001-9-0081	0.00	0.00	0.00
Limestone Dryers 001-6-0136	0.00	0.00	0.00
Space Heaters 001-6-0243/0244	0.00	0.00	0.00
TOTALS	22.80	149.82	6.24

This form must be used to report Greenhouse gas emissions:

- carbon dioxide (CO₂)
- methane (CH₄)
- nitrous oxide (N₂O)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulfur hexafluoride (SF₆)

* Use a separate form for each pollutant.
* Please attach all calculations.

¹Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/15/08

Maryland Emissions Certification

Spreadsheets of calculations

AES Warrior Run

Calendar Year **2018**

Note: Enter data in the yellow cells

Part 1: Fuel Consumption

Fuel	Units	Source
Coal Burned:	580,994 tons	Daily Report

Diesel Burned:		
ACFB	55,700 gallons	Daily Report
EBFP	200 gallons	See next sheet
LS Dryers	0 gallons	See next sheet

Natural Gas Burned:		
LS Dryers	3,202,900 scf	See next sheet
Space Heaters	481,000 scf	Gas Usage Report

Part 2: Heat Input:

Average Coal HHV:	10,934 BTU/lb	Daily Report
Avg Fuel Oil HHV:	140000 BTU/gal	Daily Report
Avg NG HHV	1020 BTU/scf	Handbook
ACFB	12,924,470 mmBTU	CEMs/DAHs/XML EDR
ACFB Diesel	7,798 mmBTU	

EBFP	28 mmBTU
------	----------

LS Dryers - NG	3,267 mmBTU
LS Dryers - Oil	0 mmBTU

Space Heaters	490.62 mmBTU
---------------	--------------

NOTES:

ACFB = Atmospheric Circulating Fluidized Bed Boiler

EBFP = Emergency Boiler Feed Pump

LS = Limestone

NG = Natural Gas

Oil = Number 2 low sulfur fuel oil

System Operating Hours and Fuel Use

AES Warrior Run

Maryland Emission Certification for CY

2018

Emergency Boiler Feed Pump Operating Hours

Total Operating Hours per logbook: **21.4** hours EDBFP Log
 Maximum fuel oil flow to pump: **27.7** gal/hr
 Total fuel oil consumption: **200** gallons Fuel Oil Inventory

Limestone System:

From Quarterly LS Roller Mills Run Time Report (from MH)

Limestone fuel consumption:	scf x 100 Gas	Gallons Diesel	Run time sys1 (hr.min)	Run time sys2 (hr.min)	Run Time sys1 (hr)	Run Time sys2 (hr)	Average Run time (hr)
January	7382	0	227.12	235.55	227.20	235.92	231.6
February	4532	0	174.04	177.57	174.07	177.95	176.0
March	2835	0	229.17	213.14	229.28	213.23	221.3
April	1560	0	102.55	102.55	102.92	102.92	102.9
May	2293	0	195.49	201.33	195.82	201.55	198.7
June	1738	0	183.13	169.31	183.22	169.52	176.4
July	1855	0	192.55	180.17	192.92	180.28	186.6
August	2067	0	212.34	214.09	212.57	214.15	213.4
September	1197	0	118.04	132.29	118.07	132.48	125.3
October	0	0	0	0	0.00	0.00	0.0
November	3577	0	198.22	183.47	198.37	183.78	191.1
December	2993	0	201.5	199.05	201.83	199.08	200.5
Total	32,029	0			2036.25	2010.87	2,024

NOTES: Limestone system 1 and system 2 are run simultaneously.

Diesel oil used is No. 2 low sulfur oil

ACFB Operating Hours

Total Operating Hours **7305** per CEMS Computer. Includes time on start up oil burners.
 Coal Burned: **580,994** tons Coal hr: 7305
 Diesel Burned: Oil hr: 29
 ACFB **55,700** gallons

Space Heaters Operation

Operating days **32** dy per Boiler Natural gas log, days when any one unit optrs
 Operating hours **256** hr Total both units

Emission Rates for Use in Calculations

AES Warrior Run
Maryland Emission Certification

2018

ACFB		EBFP		LS Dryers, NG	
lb/mmBTU	Source	lb/mmBTU	Source	lb/mmBTU	Source
		0.02	Compliance Test Results, 2000	0.01	Compliance Test Results, 2000
		2.49	Compliance Test Results, 2000	0.135	Compliance Test Results, 2000
0.1273	100% load Stack Test Results, 2000	0.283	Compliance Test Results, 2000	0.0365	Compliance Test Results, 2000
0.000168	40% load Stack Test Results, 2000	0.021	Compliance Test Results, 2000	0.001	Compliance Test Results, 2000
3.50E-03	2017 MATS compliance tests	0.079	Compliance Test Results, 2000		See Emissions, Dust Collectors
0.0021	AP-42 Table 1.1-9 (PMFilter*0.60)	0.0632	AP-42 Table 3.4-2 basis		See Emissions, Dust Collectors
0.00081	AP-42 Table 1.1-9 (PMFilter*0.26)	0.06103387	AP-42 Table 3.4-2 basis		See Emissions, Dust Collectors
0.0137	Stack Test Results, 2010 (ICR)	0.0077	AP-42 Table 3.4-2		See Emissions, Dust Collectors
1.40E-08	Stack Test Results, 2010 (ICR)				
1.18E-07	Stack Test Results, 2010 (ICR)				
1.49E-08	Stack Test Results, 2010 (ICR)				
1.17E-07	Stack Test Results, 2010 (ICR)				
1.12E-08	Stack Test Results, 2010 (ICR)				
1.73E-07	Stack Test Results, 2010 (ICR)				
3.45E-07	Stack Test Results, 2010 (ICR)				
8.04E-07	Stack Test Results, 2010 (ICR)				
5.91E-09	2018 MATS compliance test				
1.18E-06	Stack Test Results, 2010 (ICR)				
6.62E-08	Stack Test Results, 2010 (ICR)				
1.57E-03	Stack Test Results, 2010 (ICR)				
5.54E-05	Stack Test Results, 2010 (ICR)				
9.62E-05	AP-42 Table 1.1-14				

	tpy	Source
SO2	1047.6	Based on valid CEMS data
NOx	494.8	Based on valid CEMS data

AP-42 Emission Factors for Industrial Boilers burning distillate oil

SOx	7.1	lbs SOx per Kgal distillate oil (Table 1.3-1)
NOx	24	lbs NOx per Kgal distillate oil (Table 1.3-1)
VOC	0.2	lbs TOC (VOC) per Kgal distillate oil (Table 1.3-3)
CO	5	lbs CO per Kgal light distillate oil
PM-filterable	2	lbs PM10 per Kgal distillate oil (Table 1.3-1)

Oil sulfur content **0.05 %**

SO2 Emissions

Fuel	registration No.	SCC No.	Actual Emissions		hrs/day	Start	End	Days/wk	week/yr	days/year
			tons/yr	lbs/day						
ACFB	Coal	01-3-0127	1-01-002-17	1047.800	6883.95	24		7	43.5	304
ACFB	Diesel	01-3-0127	1-01-002-17	0.198	131.82	9.67		1.5	2.0	3
EBFP	Diesel	01-9-0081	2-01-001-02	0.000	0.01	0.5		1.00	43.0	43
LS Dryers	NG	01-6-0136	3-90-006-89	0.016	0.11	6.8		7	42.7	299
LS Dryers	Diesel	01-6-0136	3-90-006-89	0.000	0.00	6.8		7	42.7	299

Testing/emergency use only

NOx Emissions

Report for Calendar Year: 2009

Fuel	registration No.	SCC No.	Actual Emissions		hrs/day	Start	End	Days/wk	week/yr	days/year
			tons/yr	lbs/day						
ACFB	Coal	01-3-0127	1-01-002-17	494.800	3251.41	24		7	43.5	304
ACFB	Diesel	01-3-0127	1-01-002-17	0.668	445.60	9.67		1.5	2.0	3
EBFP	Diesel	01-9-0081	2-01-001-02	0.035	1.62	0.5		1	43.0	43
LS Dryers	NG	01-6-0136	3-90-006-89	0.221	1.48	6.8		7	42.7	299
LS Dryers	Diesel	01-6-0136	3-90-006-89	0.000	0.00	6.8		7	42.7	299

CO Emissions

Fuel	registration No.	SCC No.	Actual Emissions		hrs/day	Start	End	Days/wk	week/yr	days/year
			tons/yr	lbs/day						
ACFB	Coal	01-3-0127	1-01-002-17	822.643	5405.72	24		7	43.5	304
ACFB	Diesel	01-3-0127	1-01-002-17	0.139	92.83	9.67		1.5	2.0	3
EBFP	Diesel	01-9-0081	2-01-001-02	0.004	0.18	0.5		1	43.0	43
LS Dryers	NG	01-6-0136	3-90-006-89	0.060	0.40	6.8		7	42.7	299
LS Dryers	Diesel	01-6-0136	3-90-006-89	0.000	0.00	6.8		7	42.7	299

VOC Emissions

Fuel	registration No.	SCC No.	Actual Emissions		hrs/day	Start	End	Days/wk	week/yr	days/year
			tons/yr	lbs/day						
ACFB	Coal	01-3-0127	1-01-002-17	1.086	7.13	24		7	43.5	304
ACFB	Diesel	01-3-0127	1-01-002-17	0.006	3.71	9.67		1.5	2.0	3
EBFP	Diesel	01-9-0081	2-01-001-02	0.000	0.01	0.5		1	43.0	43
LS Dryers	NG	01-6-0136	3-90-006-89	0.0016	0.01	6.8		7	42.7	299
LS Dryers	Diesel	01-6-0136	3-90-006-89	0.0000	0.00	6.8		7	42.7	299

PM-Filterable Emissions

Fuel	registration No.	SCC No.	Actual Emissions		hrs/day	Start	End	Days/wk	week/yr	days/year
			tons/yr	lbs/day						
ACFB	Coal	01-3-0127	1-01-002-17	22.618	148.63	24		7	43.5	304
ACFB	Diesel	01-3-0127	1-01-002-17	0.014	9.10	9.67		1.5	2.0	3
EBFP	Diesel	01-9-0081	2-01-001-02	0.001	0.05	0.5		1	43.0	43
LS Dryers	NG	01-6-0136	3-90-006-89	0.4573	3.07	6.8		7	42.7	299
LS Dryers	Diesel	01-6-0136	3-90-006-89		0.00	6.8		7	42.7	299

PM10-Filterable Emissions

Fuel	registration No.	SCC No.	Actual Emissions		hrs/day	Start	End	Days/wk	week/yr	days/year
			tons/yr	lbs/day						
ACFB	Coal	01-3-0127	1-01-002-17	13.571	89.18	24		7	43.5	304
ACFB	Diesel	01-3-0127	1-01-002-17	0.008	5.46	9.67		1.5	2.0	3
EBFP	Diesel	01-9-0081	2-01-001-02	0.001	0.04	0.5		1	43.0	43
LS Dryers	NG	01-6-0136	3-90-006-89	0.2287	1.54	6.8		7	42.7	299
LS Dryers	Diesel	01-6-0136	3-90-006-89		0.00	6.8		7	42.7	299

PM2.5-Filterable Emissions

Fuel	registration No.	SCC No.	Actual Emissions		hrs/day	Start	End	Days/wk	week/yr	days/year
			tons/yr	lbs/day						
ACFB	Coal	01-3-0127	1-01-002-17	5.881	38.64	24		7	43.5	304
ACFB	Diesel	01-3-0127	1-01-002-17	0.004	2.37	9.67		1.5	2.0	3
EBFP	Diesel	01-9-0081	2-01-001-02	0.001	0.04	0.5		1	43.0	43
LS Dryers	NG	01-6-0136	3-90-006-89	0.0686	0.46	6.8		7	42.7	299
LS Dryers	Diesel	01-6-0136	3-90-006-89		0.00	6.8		7	42.7	299

PM-Condensables Emissions

Fuel	registration No.	SCC No.	Actual Emissions		hrs/day	Start	End	Days/wk	week/yr	days/year
			tons/yr	lbs/day						
ACFB	Coal	01-3-0127	1-01-002-17	88.533	581.76	24		7	43.5	304
ACFB	Diesel	01-3-0127	1-01-002-17	0.053	35.61	9.67		1.5	2.0	3
EBFP	Diesel	01-9-0081	2-01-001-02	0.000	0.01	0.5		1	43.0	43
LS Dryers	NG	01-6-0136	3-90-006-89	0.0183	0.12	6.8		7	42.7	299
LS Dryers	Diesel	01-6-0136	3-90-006-89		0.00	6.8		7	42.7	299

NOTES:

ACFB CO emission rate while on oil is assumed to be equal to the AP-42 emission factor for light dist oil
 ACFB VOC emission rate while on oil is assumed to be equal to the AP-42 emission rate for light oil.
 LS dryer emission rates while burning diesel oil were assumed to be the same as the AP-42 emission factors for light oil
 ACFB PM10 emission factors while burning diesel were assumed to be the same as when burning coal.
 ACFB stack test at 100% load detected no VOC. The results at 40% load were used to be conservative.

Space Heaters

2018

AP-42 Emission Factors (EF) for natural gas combustion (small boilers) - Tables 1.4-1 and 1.4-2

Pollutant	EF (lb/MMscf)	Est Emis		Operating Schedule			
		(tpy)	(lb/dy)	(hr/dy)	(dy/wk)	(wk/yr)	(dy/yr)
SO2	0.6	0.000	0.009	24	4	8	32
Nox	100	0.024	1.503	24	4	8	32
CO	84	0.020	1.263	24	4	8	32
VOC	5.5	0.001	0.083	24	4	8	32
PM-Filterable	1.9	0.000	0.029	24	4	8	32
PM10-Filterable	1.9	0.000	0.029	24	4	8	32
PM2.5-Filterable	1.9	0.000	0.029	24	4	8	32
PM-Condensable	5.7	0.001	0.086	24	4	8	32

CO₂ Absorber Vent

2018

Based on amine slip emission factor from 2010 Technical Report DOE/FE/0002477:

2 lb/hr

at

92000 lb/hr CO₂

Annual CO₂ production = 23034 tpy

Pollutant	EF [(lb/hr amine)/(lb/hr CO ₂ prod)]	CO ₂ Prod		Est Emis		Operating Schedule			
		(tpy)	(lb/dy)	(tpy)	(lb/dy)	(hr/dy)	(dy/wk)	(wk/yr)	(dy/yr)
VOC	2.17E-05	23,034	188,033	0.50	4.09	24	7	35	245

PM Emissions

2018

AES Warrior Run LS Dryer/Crusher Dust Collectors - PM-Filterable Emissions

Emission Unit Description	Emission Unit ID	Emission Point ID/AES ID	Flowrate ¹ (dscfm)	Grain Loading ¹ (gr/dscf)	Annual Operation		Annual Actual PM Emissions		Operating Schedule		
					(hr)	(dy)	(tpy)	(lb/dy)	(hr/dy)	(dy/wk)	(wk/yr)
Limestone Dryer/Crusher #1	EU-3	EP-3/DCS-7	17118	0.0019	2036	299	0.28	1.85	6.81	7	42.7
Limestone Dryer/Crusher #2	EU-4	EP-4/DCS-8	13543	0.0015	2011	296	0.18	1.22	6.79	7	42.3

AES Warrior Run LS Dryer/Crusher Dust Collectors - PM10-Filterable Emissions

Emission Unit Description	Emission Unit ID	Emission Point ID/AES ID	Flowrate ¹ (dscfm)	Grain Loading ¹ (gr/dscf)	Annual Operation		Annual Actual PM Emissions		Operating Schedule		
					(hr)	(dy)	(tpy)	(lb/dy)	(hr/dy)	(dy/wk)	(wk/yr)
Limestone Dryer/Crusher #1	EU-3	EP-3/DCS-7	17118	0.0009	2036	299	0.14	0.93	6.81	7	42.7
Limestone Dryer/Crusher #2	EU-4	EP-4/DCS-8	13543	0.0008	2011	296	0.09	0.61	6.79	7	42.3

AES Warrior Run LS Dryer/Crusher Dust Collectors - PM2.5-Filterable Emissions

Emission Unit Description	Emission Unit ID	Emission Point ID/AES ID	Flowrate ¹ (dscfm)	Grain Loading ¹ (gr/dscf)	Annual Operation		Annual Actual PM Emissions ²		Operating Schedule		
					(hr)	(dy)	(tpy)	(lb/dy)	(hr/dy)	(dy/wk)	(wk/yr)
Limestone Dryer/Crusher #1	EU-3	EP-3/DCS-7	17118		2036	299	0.04	0.28	6.81	7	42.7
Limestone Dryer/Crusher #2	EU-4	EP-4/DCS-8	13543		2011	296	0.03	0.18	6.79	7	42.3

AES Warrior Run LS Dryer/Crusher Dust Collectors - PM-Condensables Emissions

Emission Unit Description	Emission Unit ID	Emission Point ID/AES ID	Flowrate ¹ (dscfm)	Grain Loading ¹ (gr/dscf)	Annual Operation		Annual Actual PM Emissions ³		Operating Schedule		
					(hr)	(dy)	(tpy)	(lb/dy)	(hr/dy)	(dy/wk)	(wk/yr)
Limestone Dryer/Crusher #1	EU-3	EP-3/DCS-7	17118		2036	299	0.01	0.06	6.81	7	42.7
Limestone Dryer/Crusher #2	EU-4	EP-4/DCS-8	13543		2011	296	0.01	0.06	6.79	7	42.3

Footnotes:

1. Based on 2000 stack test data
2. AP-42 Table B.2.2, Category 3 (PMFilter*0.15)
3. AP-42 Table 1.4-2 (5.7lb/1000000 scf NG)

AES Warrior Run Additional Dust Collectors - PM-Filterable Emissions

Emission Unit Description	Emission Unit ID	Emission Point ID/AES ID	Flowrate ¹ (acfm)	Allowable Grain Loading ² (gr/acf)	Annual Operation		Annual Actual PM Emissions		Operating Schedule		
					(hr)	(dy)	(tpy)	(lb/dy)	(hr/dy)	(dy/wk)	(wk/yr)
Limestone truck unloading operation	EU-2	EP-2/DCS-5	15000	0.002	2508	209	0.32	3.09	12	4.64	45
Limestone storage silo ⁴	EU-5	EP-5/DCS-9	3000	0.003	7305	304	0.28	1.85	24	7	43
Coal truck unloading operation	EU-6	EP-6/DCS-1	28000	0.003	2988	249	1.08	8.64	12	5.3	47
Coal crushing and reclaiming system	EU-7	EP-7/DCS-3	9000	0.003	3653	304	0.42	2.78	12	7	43
Coal storage systems (silos)	EU-8	EP-8/DCS-4	7000	0.003	7305	304	0.66	4.32	24	7	43
Bed ash day bin ⁴	EU-9	EP-9/DCS-10	2000	0.003	7305	304	0.19	1.23	24	7	43
Bed ash storage silo ⁵	EU-10	EP-10/DCS-12	2000	0.003	5479	304	0.14	0.93	18	7	43
Fly ash storage silo ⁴	EU-11	EP-11/DCS-13	4000	0.003	7305	304	0.38	2.47	24	7	43

AES Warrior Run Additional Dust Collectors - PM10-Filterable Emissions

Emission Unit Description	Emission Unit ID	Emission Point ID/AES ID	Flowrate ¹ (acfm)	Allowable Grain Loading ² (gr/acf)	Annual Operation		Annual Actual PM Emissions ^{3,3a}		Operating Schedule		
					(hr)	(dy)	(tpy)	(lb/dy)	(hr/dy)	(dy/wk)	(wk/yr)
Limestone truck unloading operation	EU-2	EP-2/DCS-5	15000		2508	209	0.16	1.57	12	4.64	45
Limestone storage silo ⁴	EU-5	EP-5/DCS-9	3000		7305	304	0.14	0.94	24	7	43
Coal truck unloading operation	EU-6	EP-6/DCS-1	28000		2988	249	0.55	4.41	12	5.3	47
Coal crushing and reclaiming system	EU-7	EP-7/DCS-3	9000		3652.5	304	0.22	1.42	12	7	43
Coal storage systems (silos)	EU-8	EP-8/DCS-4	7000		7305	304	0.34	2.20	24	7	43
Bed ash day bin ⁴	EU-9	EP-9/DCS-10	2000		7305	304	0.16	1.05	24	7	43
Bed ash storage silo ⁵	EU-10	EP-10/DCS-12	2000		5478.75	304	0.12	0.79	18	7	43
Fly ash storage silo ⁴	EU-11	EP-11/DCS-13	4000		7305	304	0.32	2.10	24	7	43

AES Warrior Run Additional Dust Collectors - PM2.5-Filterable Emissions

Emission Unit Description	Emission Unit ID	Emission Point ID/AES ID	Flowrate ¹ (acfm)	Allowable Grain Loading ² (gr/acf)	Annual Operation		Annual Actual PM Emissions ^{6,6a}		Operating Schedule		
					(hr)	(dy)	(tpy)	(lb/dy)	(hr/dy)	(dy/wk)	(wk/yr)
Limestone truck unloading operation	EU-2	EP-2/DCS-5	15000		2508	209	0.05	0.46	12	4.64	45
Limestone storage silo ⁴	EU-5	EP-5/DCS-9	3000		7305	304	0.04	0.28	24	7	43
Coal truck unloading operation	EU-6	EP-6/DCS-1	28000		2988	249	0.16	1.30	12	5.3	47
Coal crushing and reclaiming system	EU-7	EP-7/DCS-3	9000		3652.5	304	0.06	0.42	12	7	43
Coal storage systems (silos)	EU-8	EP-8/DCS-4	7000		7305	304	0.10	0.65	24	7	43
Bed ash day bin ⁴	EU-9	EP-9/DCS-10	2000		7305	304	0.06	0.37	24	7	43
Bed ash storage silo ⁵	EU-10	EP-10/DCS-12	2000		5478.75	304	0.04	0.28	18	7	43
Fly ash storage silo ⁴	EU-11	EP-11/DCS-13	4000		7305	304	0.11	0.74	24	7	43

Footnotes:

1. PSD application (1993), Table 2-15
2. PSD Approval (94-01, 5/13/94) and Part 70 Operating Permit (24-001-00203, 3/1/04); except EU-2 allowable not in Part 70 Permit
3. AP-42 Table B.2.2, Category 3 for LS and Coal sources (PMFilter*0.51)
- 3a. AP-42 Table B.2.2, Category 4 for Ash sources (PMFilter*0.85)
4. Runs simultaneously with boiler
5. Runs approximately 75% of boiler hours
6. AP-42 Table B.2.2, Category 3 for LS and Coal sources (PMFilter*0.15)
- 6a. AP-42 Table B.2.2, Category 4 for Ash sources (PMFilter*0.30)

Calculation Parameters and References		
0.74	PM particle size multiplier (k)	AP-42, 5th ed., Section 13.2.4 - Aggregate Handling and Storage Piles
0.35	PM10 particle size multiplier (k)	AP-42, 5th ed., Section 13.2.4 - Aggregate Handling and Storage Piles
0.053	PM2.5 particle size multiplier (k)	AP-42, 5th ed., Section 13.2.4 - Aggregate Handling and Storage Piles
1.3	mph average wind speed (u)	Enclosure assumes minimum of wind speed range for AP-42 13.2.4.3 Eq.
3.0	% average moisture (m) blend coal fuel	Average moisture content from blend coal samples provided by AES
0	tons blend coal fuel processed annually	
20	ton capacity of blend coal fuel haul truck	
80000	lb maximum short-term process rate (2 truck loads in 1 hour)	
12	hr daily operating period for blend coal fuel haul trucks	
0	dy blend fuel processed during the year	

Fugitive Dust Emission Factor (EF) for Dumping Operations:

$EF = \text{lb/ton} = k * 0.0032 * (u^5)^{1.3} * (m/2)^{1.4}$ (AP-42, 5th ed. (11/06), Section 13.2.4, U.S. EPA)

Particulate scaling factors: see the particle size multiplier or 'k' values shown above

Source ID No.	Description	PM Emission Factor*	PM ₁₀ Emission Factor*	PM _{2.5} Emission Factor*	Emission Factor Units	Process Rate (lb/hr)	Process Rate (tpy)	Emissions Control Type	Control Efficiency (%)
EU 19	Blend coal fuel dump to conveyor	2.33E-04	1.10E-04	1.67E-05	lb/ton	0	0	3-Sided and Roof Enclosure w/ Curtain, and Wet Suppression	97.5

Source ID No.	Description	PM			PM ₁₀			PM _{2.5}		
		(lb/hr)	(lb/day)	(tpy)	(lb/hr)	(lb/day)	(tpy)	(lb/hr)	(lb/day)	(tpy)
EU 19	Blend coal fuel dump to conveyor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

AES WARRIOR RUN
2018
Storage Tank VOC Emissions Calculations for Fuel Oil

Reference: Compilation of Air Pollutant Emission Factors (AP-42), 5th Edition, January 1995
 Volume I: Stationary Point and Area Sources
 U.S. Environmental Protection Agency Office of Air and Radiation, Office of Air Quality Planning and Standards

Source-specific input data
 Site-specific input data

Tank Information:

Large Tank

Tank Shell Height (H_s) 25.5 ft
 Tank Shell Diameter (D) 20 ft
 Tank capacity (gal) 60000 gal
 Max fill factor (%) 75 %
 Annual Thruput (Q) 55700 gal
 Turnover rate (N) 1.2377778

Small Tank

Tank Shell Height (H_s) 12 ft
 Tank Shell Diameter (D) 12 ft
 Tank capacity (gal) 10000 gal
 Max fill factor (%) 75 %
 Annual Thruput (Q) 0 gal
 Turnover rate (N) 0

Standing Losses from a Fixed Roof Tank (L_s):

$$L_s = 365 V_v W_v K_E K_s \quad \text{(Equation 1-2)}$$

Where:

L_s = Storage Tank Standing Losses, lb/yr
 V_v = Vapor Space Volume, ft³
 W_v = Vapor Density, lb/ft³
 K_E = Vapor Space Expansion Factor
 K_s = Vented Vapor Saturation Factor
 365 = days/year

Equation 1-3

$$V_v = (\pi/4) * D^2 * H_{VO}$$

Where:

V_v = Vapor Space Volume, ft³
 D = Tank Diameter, ft
 H_{VO} = Vapor Space Outage, ft

Equation 1-9

$$W_v = (M_v P_{VA}) / (R T_{LA})$$

Where:

W_v = Vapor Density, lb/ft³
 M_v = Vapor Molecular Weight, lb/lbmole
 R = Ideal Gas Constant, 10.731 (psia ft³)/(lb-mole °R)
 P_{VA} = Vapor Pressure at Daily Average Liquid Surface Temp., psia
 T_{LA} = Daily Average Liquid Surface Temperature, °R

where:

$$T_{LA} = 0.44 * T_{AA} + 0.56 * T_B + (0.0079 * \alpha * I) \quad \text{(Equation 1-13)}$$

and:

$$T_B = T_{AA} + 6 * \alpha - 1 \quad \text{(Equation 1-15)}$$

$$T_{AA} = (T_{AX} + T_{AN}) / 2 \quad \text{(Equation 1-14)}$$

where:

T_{AA} = Daily Average Ambient Temperature, °R
 T_{AX} = Daily Maximum Ambient Temp., °R

Equation 1-22

$$K_s = 1 / (1 + (0.053 * P_{VA} * H_{VO}))$$

Where:

K_s = Vented Vapor Saturation Factor, dimensionless
 P_{VA} = Vapor Pressure @ Daily Avg Liquid Surface Temp, psia
 H_{VO} = Vapor Space Outage, ft

Equation 1-16

$$K_E = dT_v / T_{LA} + (dP_v - dP_B) / (P_A - P_{VA})$$

Where:

dT_v = Daily Vapor Temperature Range, °R
 dP_v = Daily Vapor Pressure Range, psi
 dP_B = Breather Vent Pressure Setting Range, psi
 P_A = Atmospheric Pressure, 14.7 psia
 P_{VA} = Vapor Pressure @ Daily Avg. Liquid Surface Temp., psia
 T_{LA} = Daily Average Liquid Surface Temp., °R

and:

$$dT_v = 0.72 * dT_A + (0.028 * \alpha * I) \quad \text{(Equation 1-17)}$$

where:

dT_A = Daily Ambient Temperature Range, °R
 dT_A = T_{AX} - T_{AN} \quad \text{(Equation 1-21)}

**AES WARRIOR RUN
2018
Storage Tank VOC Emissions Calculations for Fuel Oil**

Reference: Compilation of Air Pollutant Emission Factors (AP-42), 5th Edition, January 1995

Volume I: Stationary Point and Area Sources

U.S. Environmental Protection Agency Office of Air and Radiation, Office of Air Quality Planning and Standards

Source-specific input data

Site-specific input data

T_{AN} = Daily Minimum Ambient Temp., °R

alpha = Tank Paint Solar Absorptance, dimensionless, from Table 7.1-6

I = Daily Total Solar Insulation Factor, Btu/ft² d

$$dP_v = P_{VX} - P_{VN} \quad \text{(Equation 1-16)}$$

and:

P_{VX} = Vapor Pressure @ Daily Max. Liquid Surface Temp. (T_{LX}), psia

P_{VN} = Vapor Pressure @ Daily Min. Liquid Surface Temp. (T_{LN}), psia

and:

$$dP_B = P_{BP} - P_{BV} \quad \text{(Equation 1-20)}$$

where:

P_{BP} = Breather Vent Pressure Setting, psig

P_{BV} = Breather Vent Vacuum Setting, psig

NOTE:

$$T_{LX} = T_{LA} + 0.25 * dT_v \quad \text{(Figure 7.1-17)}$$

$$T_{LN} = T_{LA} - 0.25 * dT_v \quad \text{(Figure 7.1-17)}$$

where:

T_{LX} = Daily Maximum Liquid Surface Temperature, °R

T_{LN} = Daily Minimum Liquid Surface Temperature, °R

Standing Losses from a Fixed Roof Tank (L_s):

Parameter Input:

Tank No.	Chemical Name	M_v (lb/lbmol)	P_A (psia)	P_{VA} (psia)	T_{AX} (°R)	T_{AN} (°R)	alpha (unitless)	I (Btu/ft ² d)	P_{BP} (psig)	P_{BV} (psig)
Large tank	Fuel oil	130.00	14.7	7.69E-03	524.6	504.9	0.54	1283	0.03	-0.03
Small tank	Fuel oil	130.00	14.7	7.69E-03	524.6	504.9	0.54	1283	0.03	-0.03

Tank	H_L (ft)	S_R (ft/ft)	H_{RO} (ft)	H_{VO} (ft)
Large tank	19.15	0.0625	0.208	6.56
Small tank	8.87	0.0625	0.125	3.26

Intermediate Calculations:

Tank No.	Chemical Name	T_{AA} (°R)	T_B (°R)	T_{LA} (°R)	dT_A (°R)	dP_B (psia)	dT_v (°R)	T_{LX} (°R)	T_{LN} (°R)	P_{VX} (psia)	P_{VN} (psia)	dP_v (psia)
Large tank	Fuel oil	514.7575	517	521.5	19.8	0.06	33.6	529.9	513.1	9.07E-03	5.49E-03	3.58E-03
Small tank	Fuel oil	514.7575	517	521.5	19.8	0.06	33.6	529.9	513.1	9.07E-03	5.49E-03	3.58E-03

Average Annual Standing Losses (L_s):

Tank No.	Chemical Name	V_v (ft ³)	W_v (lb/ft ³)	K_R (unitless)	K_S (unitless)	L_s (lb/yr)	L_s (ton/yr)
Large tank	Fuel oil	2060.86	1.79E-04	0.061	0.997	8.13E+00	4.06E-03
Small tank	Fuel oil	368.51	1.79E-04	0.061	0.999	1.46E+00	7.28E-04

AES WARRIOR RUN
2018
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Source-specific input data

Site-specific input data

Working Losses from a Fixed Roof Tank (L_w)

$$L_w = (0.001)(M_v)(P)(Q)(K_N)(K_P) \quad \text{(Equation 1-23)}$$

Where:

- L_w = Storage Tank Working Losses, lb/yr
- M_v = Molecular Weight of Vapor in Storage Tank, lb/lb-mole
- P_{VA} = True Vapor Pressure at Daily Average Liquid Surface Temperature, psia
- Q = Annual Net Throughput, barrels/yr
- K_N = Turnover Factor, dimensionless
- K_P = Product Factor, dimensionless. K_P equals 1.0 for liquids except crude oil.

Tank No.	Chemical Name	M_v (lb/lb-mol)	P_{VA} (psia)	Q^* (barrels/yr)	K_N (unitless)	K_P (unitless)
Large tank	Fuel oil	130.00	7.69E-03	1,326	1.00	1.0
Small tank	Fuel oil	130.00	7.69E-03	0	1.00	1.0

Average Annual Working Losses (L_w):

Tank No.	Chemical Name	L_w (lb/yr)	L_w (ton/yr)
Large tank	Fuel oil	1.33	6.63E-04
Small tank	Fuel oil	0.00	0.00E+00

12.3.1 Total Uncontrolled Losses From Fixed Roof Tanks (Water and Acid):

$$L_T = L_S + L_w \quad \text{(Equation 1-1)}$$

Where:

- L_T = Total losses, lb/yr
- L_S = Standing Storage Losses, lb/yr
- L_w = Working Losses, lb/yr

Tank No.	Chemical Name	Average Standing Loss (L_S) ton/yr	Average Working Loss (L_w) ton/yr	Total Average Annual Emissions (L_T) ton/yr
Large tank	Fuel oil	4.06E-03	6.63E-04	4.73E-03
Small tank	Fuel oil	7.28E-04	0.00E+00	7.28E-04

Total Fuel Oil Hourly and Annual Emissions from Fixed Roof Tanks:

Tank No.	Chemical Name	Total Average Annual Emissions (L_T) ton/yr	Total Average Annual Emissions (L_T) lb/yr	Total Average Annual Emissions (L_T) lb/dy
Large tank	Fuel oil	4.73E-03	9	0.026
Small tank	Fuel oil	7.28E-04	1	0.004

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	Component	Temperature (deg F)	Component Partial Pressure* (psia)
T _{AN}	Fuel Oil No. 2		
	Fuel Oil No. 2	40.00	0.0031
	Fuel Oil No. 2		
	Fuel Oil No. 2	45.20	0.0038
T _{LN}	Fuel Oil No. 2		
	Fuel Oil No. 2	50.00	0.0045
	Fuel Oil No. 2		
	Fuel Oil No. 2	53.41	0.0055
T _{LA}	Fuel Oil No. 2		
	Fuel Oil No. 2	60.00	0.0074
	Fuel Oil No. 2		
	Fuel Oil No. 2	61.81	0.0077
T _{AX}	Fuel Oil No. 2		
	Fuel Oil No. 2	64.98	0.0082
	Fuel Oil No. 2		
	Fuel Oil No. 2	70.00	0.0090
T _{LX}	Fuel Oil No. 2		
	Fuel Oil No. 2	70.22	0.0091
	Fuel Oil No. 2		
	Fuel Oil No. 2	80.00	0.0120

T_{AN} and T_{AX} from TANKS 4.0

*True Vapor Pressure, P_{VA} - From AP-42 (9/97)

Table 7.1-2. Properties (MV, WVC, PVA, WL) of Selected Petroleum Liquids

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2018
Storage Tank VOC Emissions Calculations for UCARSOL

Reference: Compilation of Air Pollutant Emission Factors (AP-42), 5th Edition, January 1995
 Volume I: Stationary Point and Area Sources
 U.S. Environmental Protection Agency Office of Air and Radiation, Office of Air Quality Planning and Standards

Source-specific input data

Site-specific input data

Tank Information:

UCARSOL Tank

Tank Shell Height (H _S)	17 ft	
Tank Shell Diameter (D)	9.8 ft	
Tank capacity (gal)	10000 gal	
Max fill factor (%)	75 %	
Annual Thruput (Q)	14047.1 gal	(UCARSOL AP814 solvent assumed similar to MEA)
Turnover rate (N)	1.8729467	

Standing Losses from a Fixed Roof Tank (L_S):

$$L_S = 365 V_V W_V K_E K_S \quad \text{(Equation 1-2)}$$

Where:

- L_S = Storage Tank Standing Losses, lb/yr
- V_V = Vapor Space Volume, ft³
- W_V = Vapor Density, lb/ft³
- K_E = Vapor Space Expansion Factor
- K_S = Vented Vapor Saturation Factor
- 365 = days/year

Equation 1-3

$$V_V = (Pi/4) * D^2 * H_{VO}$$

Where:

- V_V = Vapor Space Volume, ft³
- D = Tank Diameter, ft
- H_{VO} = Vapor Space Outage, ft

Equation 1-2

$$W_V = (M_V P_{VA}) / (R T_{LA})$$

Where:

- W_V = Vapor Density, lb/ft³
- M_V = Vapor Molecular Weight, lb/lbmole
- R = Ideal Gas Constant, 10.731 (psia ft³)/(lb-mole °R)
- P_{VA} = Vapor Pressure at Daily Average Liquid Surface Temp., psia
- T_{LA} = Daily Average Liquid Surface Temperature, °R

where:

$$T_{LA} = 0.44 * T_{AA} + 0.56 * T_B + (0.0079 * \alpha * I) \quad \text{(Equation 1-13)}$$

and:

$$T_B = T_{AA} + 6 * \alpha - 1 \quad \text{(Equation 1-15)}$$

$$T_{AA} = (T_{AX} + T_{AN}) / 2 \quad \text{(Equation 1-14)}$$

where:

- T_{AA} = Daily Average Ambient Temperature, °R
- T_{AX} = Daily Maximum Ambient Temp., °R
- T_{AN} = Daily Minimum Ambient Temp., °R
- alpha = Tank Paint Solar Absorptance, dimensionless, from Table 7.1-6
- I = Daily Total Solar Insulation Factor, Btu/ft² d

NOTE:

$$T_{LX} = T_{LA} + 0.25 * dT_V \quad \text{(Figure 7.1-17)}$$

$$T_{LX} = T_{LA} - 0.25 * dT_V \quad \text{(Figure 7.1-17)}$$

where:

- T_{LX} = Daily Maximum Liquid Surface Temperature, °R
- T_{LX} = Daily Minimum Liquid Surface Temperature, °R

Equation 1-22

$$K_S = 1 / (1 + (0.053 * P_{VA} * H_{VO}))$$

Where:

- K_S = Vented Vapor Saturation Factor, dimensionless
- P_{VA} = Vapor Pressure @ Daily Avg Liquid Surface Temp, psia
- H_{VO} = Vapor Space Outage, ft

Equation 1-16

$$K_E = dT_V / T_{LA} + (dP_V - dP_B) / (P_A - P_{VA})$$

Where:

- dT_V = Daily Vapor Temperature Range, °R
- dP_V = Daily Vapor Pressure Range, psi
- dP_B = Breather Vent Pressure Setting Range, psi
- P_A = Atmospheric Pressure, 14.7 psia
- P_{VA} = Vapor Pressure @ Daily Avg. Liquid Surface Temp., psia
- T_{LA} = Daily Average Liquid Surface Temp., °R

and:

$$dT_V = 0.72 * dT_A + (0.028 * \alpha * I) \quad \text{(Equation 1-17)}$$

where:

- dT_A = Daily Ambient Temperature Range, °R
- dT_A = T_{AX} - T_{AN} \quad \text{(Equation 1-21)}

and:

$$dP_V = P_{VX} - P_{VN} \quad \text{(Equation 1-18)}$$

and:

- P_{VX} = Vapor Pressure @ Daily Max. Liquid Surface Temp. (T_{LX}), psia
- P_{VN} = Vapor Pressure @ Daily Min. Liquid Surface Temp. (T_{LN}), psia

and:

$$dP_B = P_{BP} - P_{BV} \quad \text{(Equation 1-20)}$$

where:

- P_{BP} = Breather Vent Pressure Setting, psig
- P_{BV} = Breather Vent Vacuum Setting, psig

AES WARRIOR RUN
2018
Storage Tank VOC Emissions Calculations for UCARSOL

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Source-specific input data

Site-specific input data

Standing Losses from a Fixed Roof Tank (L_s):

Parameter Input:

Tank No.	Chemical Name	M _v (lb/lbmol)	P _A (psia)	P _{VA} (psia)	T _{AX} (°R)	T _{LN} (°R)	alpha (unitless)	I (Btu/ft ²)	P _{RP} (psig)	P _{BV} (psig)
UCARSOL tank	MEA	130.00	14.7	4.64E-03	524.6	504.9	0.39	1283	0.03	-0.03

Tank	H _L (ft)	S _R (ft/ft)	H _{RO} (ft)	H _{VD} (ft)
UCARSOL tank	13.29	0.0625	0.102	3.81

Intermediate Calculations:

Tank No.	Chemical Name	T _{AA} (°R)	T _B (°R)	T _{LA} (°R)	dT _A (°R)	dP _B (psia)	dT _V (°R)	T _{LX} (°R)	T _{LN} (°R)	P _{VX} (psia)	P _{VN} (psia)	dP _V (psia)
UCARSOL tank	MEA	514.7575	516	519.5	19.8	0.06	28.2	526.5	512.4	7.21E-03	2.91E-03	4.29E-03

Average Annual Standing Losses (L_s):

Tank No.	Chemical Name	V _v (ft ³)	W _v (lb/ft ³)	K _R (unitless)	K _P (unitless)	L ₀ (lb/yr)	L _S (ton/yr)
UCARSOL tank	MEA	287.40	1.08E-04	0.051	0.999	5.74E-01	2.87E-04

Working Losses from a Fixed Roof Tank (L_w):

$$L_w = (0.001)(M_v)(P)(Q)(K_N)(K_P) \quad \text{(Equation 1-23)}$$

Where:

- L_w = Storage Tank Working Losses, lb/yr
- M_v = Molecular Weight of Vapor in Storage Tank, lb/lb-mole
- P_{VA} = True Vapor Pressure at Daily Average Liquid Surface Temperature, psia
- Q = Annual Net Throughput, barrels/yr
- K_N = Turnover Factor, dimensionless
- K_P = Product Factor, dimensionless. KP equals 1.0 for liquids except crude oil.

Tank No.	Chemical Name	M _v (lb/lb-mol)	P _{VA} (psia)	Q* (barrels/yr)	K _N (unitless)	K _P (unitless)
UCARSOL tank	MEA	130.00	4.64E-03	334	1.00	1.0

Average Annual Working Losses (L_w):

Tank No.	Chemical Name	L _w (lb/yr)	L _w (ton/yr)
UCARSOL tank	MEA	0.20	1.01E-04

AES WARRIOR RUN
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Source-specific input data

Site-specific input data

12.3.1 Total Uncontrolled Losses From Fixed Roof Tanks (Water and Acid):

$$L_T = L_S + L_W \quad \text{(Equation 1-1)}$$

Where:

- L_T = Total losses, lb/yr
- L_S = Standing Storage Losses, lb/yr
- L_W = Working Losses, lb/yr

Tank No.	Chemical Name	Average Standing Loss (L_S) ton/yr	Average Working Loss (L_W) ton/yr	Total Average Annual Emissions (L_T) ton/yr
UCARSOL tank	MEA	2.87E-04	1.01E-04	3.88E-04

Total Hourly and Annual Emissions from Fixed Roof Tanks:

Tank No.	Chemical Name	Total Average Annual Emissions (L_T) ton/yr	Total Average Annual Emissions (L_T) lb/yr	Total Average Annual Emissions (L_T) lb/dy
UCARSOL tank	MEA	3.88E-04	1	0.002

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	Component	Temperature (deg F)	Component Partial Pressure* (psia)
T _{AN}	Solvent		
	Solvent	40.00	0.0012
	Solvent		
	Solvent	45.20	0.0018
T _{LN}	Solvent		
	Solvent	50.00	0.0023
	Solvent		
	Solvent	53.41	0.0029
T _{LA}	Solvent		
	Solvent	60.00	0.0041
	Solvent		
	Solvent	61.81	0.0046
T _{AX}	Solvent		
	Solvent	64.98	0.0056
	Solvent		
	Solvent	70.00	0.0071
T _{LX}	Solvent		
	Solvent	70.22	0.0072
	Solvent		
	Solvent	80.00	0.0119

T_{AN} and T_{AX} from TANKS 4.0
 Assume solvent similar to MEA

*Antoine's coefficients a= 7.456, b= 1577.670 and c= 173.370

Air Toxics - Estimated Releases

AES Warrior Run
Maryland Emissions Certification CY

2018

Limestone Dryers

Data for Emissions Calculations:

Kgals No. 2 fuel oil: 0
MMBtu No. 2 fuel oil: 0
mmscf natural gas: 3.203
days operation: 299
hours operation: 2024

Part 1 Metals:	EF		Est Emis		Est Emis			
	Fuel oil ^a (lb/10 ¹² Btu)	Gas ^b (lb/mmscf)	Fuel oil (lb)	Gas (lb)	Total (lb)	Annual (tpy)	Daily (lb/dy)	Hourly (lb/hr)
Arsenic	4.00E+00	2.00E-04	0.00E+00	6.41E-04	6.41E-04	3.20E-07	2.14E-06	3.17E-07
Beryllium	3.00E+00	1.20E-05	0.00E+00	3.84E-05	3.84E-05	1.92E-08	1.29E-07	1.90E-08
Cadmium	3.00E+00	1.10E-03	0.00E+00	3.52E-03	3.52E-03	1.76E-06	1.18E-05	1.74E-06
Chromium	3.00E+00	1.40E-03	0.00E+00	4.48E-03	4.48E-03	2.24E-06	1.50E-05	2.22E-06
Cobalt		8.40E-05	0.00E+00	2.69E-04	2.69E-04	1.35E-07	9.00E-07	1.33E-07
Lead	9.00E+00	5.00E-04	0.00E+00	1.60E-03	1.60E-03	8.01E-07	5.36E-06	7.91E-07
Manganese	6.00E+00	3.80E-04	0.00E+00	1.22E-03	1.22E-03	6.09E-07	4.07E-06	6.01E-07
Nickel	3.00E+00	2.10E-03	0.00E+00	6.73E-03	6.73E-03	3.36E-06	2.25E-05	3.32E-06
Selenium	1.50E+01	2.40E-05	0.00E+00	7.69E-05	7.69E-05	3.84E-08	2.57E-07	3.80E-08

(a) AP-42 Table 1.3-10

(b) AP-42 Table 1.4-4; AP-42 Table 1.4-2 (Pb)

Part 2 Organics:	EF		Est Emis		Est Emis			
	Fuel oil ^a (lb/Kgal)	Gas ^b (lb/mmscf)	Fuel oil (lb)	Gas (lb)	Total (lb)	Annual (tpy)	Daily (lb/dy)	Hourly (lb/hr)
Acenaphthene	2.11E-05	1.80E-06	0.00E+00	5.77E-06	5.77E-06	2.88E-09	1.93E-08	2.85E-09
Acenaphthylene	2.53E-07	1.80E-06	0.00E+00	5.77E-06	5.77E-06	2.88E-09	1.93E-08	2.85E-09
Anthracene	1.22E-06	2.40E-06	0.00E+00	7.69E-06	7.69E-06	3.84E-09	2.57E-08	3.80E-09
Benz(a)anthracene	4.01E-06	1.80E-06	0.00E+00	5.77E-06	5.77E-06	2.88E-09	1.93E-08	2.85E-09
Benzene	2.14E-04	2.10E-03	0.00E+00	6.73E-03	6.73E-03	3.36E-06	2.25E-05	3.32E-06
Benzo(a)pyrene		1.20E-06	0.00E+00	3.84E-06	3.84E-06	1.92E-09	1.29E-08	1.90E-09
Benzo(b)fluoranthene	1.48E-06	1.80E-06	0.00E+00	5.77E-06	5.77E-06	2.88E-09	1.93E-08	2.85E-09
Benzo(ghi)perylene	2.26E-06	1.20E-06	0.00E+00	3.84E-06	3.84E-06	1.92E-09	1.29E-08	1.90E-09
Benzo(k)fluoranthene	1.48E-06	1.80E-06	0.00E+00	5.77E-06	5.77E-06	2.88E-09	1.93E-08	2.85E-09
Chrysene	2.38E-06	1.80E-06	0.00E+00	5.77E-06	5.77E-06	2.88E-09	1.93E-08	2.85E-09
Dibenzo(a,h)anthracene	1.67E-06	1.20E-06	0.00E+00	3.84E-06	3.84E-06	1.92E-09	1.29E-08	1.90E-09
Dichlorobenzene		1.20E-03	0.00E+00	3.84E-03	3.84E-03	1.92E-06	1.29E-05	1.90E-06
Ethylbenzene	6.36E-05		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fluoranthene	4.84E-06	3.00E-06	0.00E+00	9.61E-06	9.61E-06	4.80E-09	3.21E-08	4.75E-09
Fluorene	4.47E-06	2.80E-06	0.00E+00	8.97E-06	8.97E-06	4.48E-09	3.00E-08	4.43E-09
Formaldehyde	3.30E-02	7.50E-02	0.00E+00	2.40E-01	2.40E-01	1.20E-04	8.03E-04	1.19E-04
Hexane		1.80E+00	0.00E+00	5.77E+00	5.77E+00	2.88E-03	1.93E-02	2.85E-03
Indeno(1,2,3-c,d)pyrene	2.14E-06	1.80E-06	0.00E+00	5.77E-06	5.77E-06	2.88E-09	1.93E-08	2.85E-09
Methyl Chloroform	2.36E-04		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Naphthalene	1.13E-03	6.10E-04	0.00E+00	1.95E-03	1.95E-03	9.77E-07	6.53E-06	9.66E-07
Phenanthrene	1.05E-05	1.70E-05	0.00E+00	5.44E-05	5.44E-05	2.72E-08	1.82E-07	2.69E-08
Pyrene	4.25E-06	5.00E-06	0.00E+00	1.60E-05	1.60E-05	8.01E-09	5.36E-08	7.91E-09
Toluene	6.20E-03	3.40E-03	0.00E+00	1.09E-02	1.09E-02	5.44E-06	3.64E-05	5.38E-06
o-Xylene	1.09E-04		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

(a) AP-42 Table 1.3-9

(b) AP-42 Table 1.4-3

Space Heaters

Data for Emissions Calculations:

mmscf natural gas: 0.481
 days operation: 32
 hours operation: 256

Part 1 Metals:	EF Gas ^a (lb/mmscf)	Est Emis			
		(lb)	Annual (tpy)	Daily (lb/dy)	Hourly (lb/hr)
Arsenic	2.00E-04	9.62E-05	4.81E-08	3.01E-06	3.76E-07
Beryllium	1.20E-05	5.77E-06	2.89E-09	1.80E-07	2.25E-08
Cadmium	1.10E-03	5.29E-04	2.65E-07	1.65E-05	2.07E-06
Chromium	1.40E-03	6.73E-04	3.37E-07	2.10E-05	2.63E-06
Cobalt	8.40E-05	4.04E-05	2.02E-08	1.26E-06	1.58E-07
Lead	5.00E-04	2.41E-04	1.20E-07	7.52E-06	9.39E-07
Manganese	3.80E-04	1.83E-04	9.14E-08	5.71E-06	7.14E-07
Nickel	2.10E-03	1.01E-03	5.05E-07	3.16E-05	3.95E-06
Selenium	2.40E-05	1.15E-05	5.77E-09	3.61E-07	4.51E-08

(a) AP-42 Table 1.4-4; AP-42 Table 1.4-2 (Pb)

Part 2 Organics:	EF Gas ^a (lb/mmscf)	Est Emis			
		(lb)	Annual (tpy)	Daily (lb/dy)	Hourly (lb/hr)
Acenaphthene	1.80E-06	8.66E-07	4.33E-10	2.71E-08	3.38E-09
Acenaphthylene	1.80E-06	8.66E-07	4.33E-10	2.71E-08	3.38E-09
Anthracene	2.40E-06	1.15E-06	5.77E-10	3.61E-08	4.51E-09
Benz(a)anthracene	1.80E-06	8.66E-07	4.33E-10	2.71E-08	3.38E-09
Benzene	2.10E-03	1.01E-03	5.05E-07	3.16E-05	3.95E-06
Benzo(a)pyrene	1.20E-06	5.77E-07	2.89E-10	1.80E-08	2.25E-09
Benzo(b)fluoranthene	1.80E-06	8.66E-07	4.33E-10	2.71E-08	3.38E-09
Benzo(ghi)perylene	1.20E-06	5.77E-07	2.89E-10	1.80E-08	2.25E-09
Benzo(k)fluoranthene	1.80E-06	8.66E-07	4.33E-10	2.71E-08	3.38E-09
Chrysene	1.80E-06	8.66E-07	4.33E-10	2.71E-08	3.38E-09
Dibenzo(a,h)anthracene	1.20E-06	5.77E-07	2.89E-10	1.80E-08	2.25E-09
Dichlorobenzene	1.20E-03	5.77E-04	2.89E-07	1.80E-05	2.25E-06
Ethylbenzene		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fluoranthene	3.00E-06	1.44E-06	7.22E-10	4.51E-08	5.64E-09
Fluorene	2.80E-06	1.35E-06	6.73E-10	4.21E-08	5.26E-09
Formaldehyde	7.50E-02	3.61E-02	1.80E-05	1.13E-03	1.41E-04
Hexane	1.80E+00	8.66E-01	4.33E-04	2.71E-02	3.38E-03
Indeno(1,2,3-c,d)pyrene	1.80E-06	8.66E-07	4.33E-10	2.71E-08	3.38E-09
Methyl Chloroform		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Naphthalene	6.10E-04	2.93E-04	1.47E-07	9.17E-06	1.15E-06
Phenanthrene	1.70E-05	8.18E-06	4.09E-09	2.56E-07	3.19E-08
Pyrene	5.00E-06	2.41E-06	1.20E-09	7.52E-08	9.39E-09
Toluene	3.40E-03	1.64E-03	8.18E-07	5.11E-05	6.39E-06
o-Xylene		0.00E+00	0.00E+00	0.00E+00	0.00E+00

(a) AP-42 Table 1.4-3

Combined Non-fuel Burning Equipment

Part 1 Metals:	Est Emis		RQ (tpy)	RQ (lb/hr)	Reportable? Y/N
	Annual (tpy)	Hourly (lb/hr)			
Arsenic	3.68E-07	6.92E-07	0.0001	0.0001	N
Beryllium	2.21E-08	4.15E-08	0.00001	0.00001	N
Cadmium	2.03E-06	3.81E-06	0.0001	0.0001	N
Chromium	2.58E-06	4.85E-06	0.01	0.001	N
Cobalt	1.55E-07	2.91E-07	0.001	0.0001	N
Lead	9.21E-07	1.73E-06	0.001	0.0001	N
Manganese	7.00E-07	1.32E-06	0.01	0.001	N
Nickel	3.87E-06	7.27E-06	0.001	0.001	N
Selenium	4.42E-08	8.31E-08	0.01	0.001	N

Part 2 Organics:	Est Emis		RQ (tpy)	RQ (lb/hr)	Reportable? Y/N
	Annual (tpy)	Hourly (lb/hr)			
Acenaphthene	3.32E-09	6.23E-09	0.01	0.001	N
Acenaphthylene	3.32E-09	6.23E-09	0.1	0.01	N
Anthracene	4.42E-09	8.31E-09	0.01	0.001	N
Benz(a)anthracene	3.32E-09	6.23E-09	0.001	0.001	N
Benzene	3.87E-06	7.27E-06	0.1	0.01	N
Benzo(a)pyrene	2.21E-09	4.15E-09	0.0001	0.001	N
Benzo(b)fluoranthene	3.32E-09	6.23E-09	0.001	0.1	N
Benzo(ghi)perylene	2.21E-09	4.15E-09	0.01	0.001	N
Benzo(k)fluoranthene	3.32E-09	6.23E-09	0.01	0.01	N
Chrysene	3.32E-09	6.23E-09	0.01	0.001	N
Dibenzo(a,h)anthracene	2.21E-09	4.15E-09	0.0001	0.0001	N
Dichlorobenzene	2.21E-06	4.15E-06	0.1	1	N
Ethylbenzene	0.00E+00	0.00E+00	10	1	N
Fluoranthene	5.53E-09	1.04E-08	0.1	0.1	N
Fluorene	5.16E-09	9.69E-09	0.01	0.001	N
Formaldehyde	1.38E-04	2.60E-04	0.01	0.001	N
Hexane	3.32E-03	6.23E-03	10	1	N
Indeno(1,2,3-c,d)pyrene	3.32E-09	6.23E-09	0.001	0.001	N
Methyl Chloroform	0.00E+00	0.00E+00	10	10	N
Naphthalene	1.12E-06	2.11E-06	1	0.1	N
Phenanthrene	3.13E-08	5.88E-08	0.01	0.01	N
Pyrene	9.21E-09	1.73E-08	0.01	0.001	N
Toluene	6.26E-06	1.18E-05	10	1	N
o-Xylene	0.00E+00	0.00E+00	10	1	N

Air Toxics - Estimated Releases

AES Warrior Run
Maryland Emissions Certification CY

2018

Limestone Dryers

Data for Emissions Calculations:

Kgals No. 2 fuel oil: 0
MMBtu No. 2 fuel oil: 0
mmscf natural gas: 3.203
days operation: 299
hours operation: 2024

Part 1 Metals:	EF		Est Emis		Est Emis			
	Fuel oil ^a (lb/10 ¹² Btu)	Gas ^b (lb/mmscf)	Fuel oil (lb)	Gas (lb)	Total (lb/yr)	Annual (tpy)	Daily (lb/dy)	Hourly (lb/hr)
Mercury	1.00E-01	2.60E-04	0.00E+00	8.33E-04	8.33E-04	4.16E-07	2.79E-06	4.12E-07

(a) 0.014 lb/10⁶ gal for #2 distillate oil from nysesda (New York State Energy Research and Development Authority), Determination of Sulfur and Toxic Metals Content of Distillate and Residual Oil in the State of New York, Final Report 10-31, December 2010. Assuming heat content of distillate oil is 140,000 Btu/gal.

(b) AP-42 Table 1.4-4

Space Heaters

Data for Emissions Calculations:

mmscf natural gas: 0.481
days operation: 32
hours operation: 256

Part 1 Metals:	EF	Est Emis			
	Gas ^a (lb/mmscf)	Total (lb/yr)	Annual (tpy)	Daily (lb/dy)	Hourly (lb/hr)
Mercury	2.60E-04	1.25E-04	6.25E-08	3.91E-06	4.89E-07

(a) AP-42 Table 1.4-4

Combined Non-fuel Burning Equipment

Part 1 Metals:	Est Emis		RQ (tpy)	RQ (lb/hr)	Reportable? Y/N
	Annual (tpy)	Hourly (lb/hr)			
Mercury	4.79E-07	9.00E-07	0.001	0.0001	N

Air Toxics - Estimated Releases

AES Warrior Run
Maryland Emissions Certification CY

2018

ACFB

Data for Emissions Calculations:

Tons of coal: 580984
MMBtu coal: 12924470
days of operation coal: 304
hours operation coal: 7305
Kgal No. 2 fuel oil: 55,700
MMBtu No. 2 fuel oil: 7798

Part 1 Metals:	EF		Est Emis		Total (lb/yr)	Est Emis		
	Fuel oil ^a (lb/10 ¹² Btu)	Coal ^b (lb/10 ¹² Btu)	Fuel oil (lb/yr)	Coal (lb/yr)		Annual (tpy)	Daily (lb/dy)	Hourly (lb/hr)
Antimony		1.40E-02	0.00E+00	1.81E-01	1.81E-01	9.05E-05	5.95E-04	2.48E-05
Arsenic	4.00E+00	1.18E-01	3.12E-02	1.53E+00	1.56E+00	7.78E-04	5.11E-03	2.13E-04
Beryllium	3.00E+00	1.49E-02	2.34E-02	1.93E-01	2.16E-01	1.08E-04	7.10E-04	2.96E-05
Cadmium	3.00E+00	1.17E-01	2.34E-02	1.51E+00	1.64E+00	7.68E-04	5.08E-03	2.10E-04
Chromium	3.00E+00	1.12E+00	2.34E-02	1.45E+01	1.45E+01	7.25E-03	4.78E-02	1.98E-03
Cobalt		1.73E-01	0.00E+00	2.24E+00	2.24E+00	1.12E-03	7.38E-03	3.06E-04
Lead	9.00E+00	3.45E-01	7.02E-02	4.46E+00	4.53E+00	2.26E-03	1.49E-02	6.20E-04
Manganese	6.00E+00	8.04E-01	4.68E-02	1.04E+01	1.04E+01	5.22E-03	3.43E-02	1.43E-03
Nickel	3.00E+00	1.18E+00	2.34E-02	1.53E+01	1.53E+01	7.64E-03	5.02E-02	2.09E-03
Selenium	1.50E+01	6.62E-02	1.17E-01	8.56E-01	9.73E-01	4.86E-04	3.20E-03	1.33E-04

(a) AP-42 Table 1.3-10

(b) Stack test, 2010 (ICR)

Part 2 Organics:	EF		Est Emis		Total (lb/yr)	Est Emis		
	Fuel oil ^a (lb/Kgal)	Coal ^b (lb/ton)	Fuel oil (lb/yr)	Coal (lb/yr)		Annual (tpy)	Daily (lb/dy)	Hourly (lb/hr)
Acenaphthene	2.11E-05	5.10E-07	1.18E-03	2.96E-01	2.97E-01	1.49E-04	9.77E-04	4.07E-05
Acenaphthylene	2.53E-07	2.50E-07	1.41E-05	1.45E-01	1.45E-01	7.26E-05	4.77E-04	1.99E-05
Acetaldehyde		5.70E-04	0.00E+00	3.31E+02	3.31E+02	1.66E-01	1.09E+00	4.53E-02
Acetophenone		1.50E-05	0.00E+00	8.71E+00	8.71E+00	4.36E-03	2.86E-02	1.19E-03
Acrolein		2.90E-04	0.00E+00	1.68E+02	1.68E+02	8.42E-02	5.54E-01	2.31E-02
Anthracene	1.22E-06	2.10E-07	6.80E-05	1.22E-01	1.22E-01	6.10E-05	4.01E-04	1.67E-05
Benz(a)anthracene	4.01E-06	8.00E-08	2.23E-04	4.65E-02	4.67E-02	2.34E-05	1.53E-04	6.39E-06
Benzene	2.14E-04	1.30E-03	1.19E-02	7.55E+02	7.55E+02	3.76E-01	2.48E+00	1.03E-01
Benzo(a)pyrene		3.80E-08	0.00E+00	2.21E-02	2.21E-02	1.10E-05	7.25E-05	3.02E-06
Benzo(b)fluoranthene	1.48E-06	1.10E-07	8.24E-05	6.39E-02	6.40E-02	3.20E-05	2.10E-04	8.76E-06
Benzo(ghi)perylene	2.26E-06	2.70E-08	1.26E-04	1.57E-02	1.58E-02	7.91E-06	5.20E-05	2.16E-06
Benzo(k)fluoranthene	1.48E-06	1.10E-07	8.24E-05	6.39E-02	6.40E-02	3.20E-05	2.10E-04	8.76E-06
Benzyl chloride		7.00E-04	0.00E+00	4.07E+02	4.07E+02	2.03E-01	1.34E+00	5.57E-02
Biphenyl		1.70E-06	0.00E+00	9.88E-01	9.88E-01	4.94E-04	3.25E-03	1.35E-04
Bis(2-ethylhexyl)phthalate		7.30E-05	0.00E+00	4.24E+01	4.24E+01	2.12E-02	1.39E-01	5.81E-03
Bromoform		3.90E-05	0.00E+00	2.27E+01	2.27E+01	1.13E-02	7.44E-02	3.10E-03
1,3-Butadiene			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon disulfide		1.30E-04	0.00E+00	7.55E+01	7.55E+01	3.78E-02	2.48E-01	1.03E-02
2-Chloroacetophenone		7.00E-06	0.00E+00	4.07E+00	4.07E+00	2.03E-03	1.34E-02	5.57E-04
Chlorobenzene		2.20E-05	0.00E+00	1.28E+01	1.28E+01	6.39E-03	4.20E-02	1.75E-03
Chloroform		5.90E-05	0.00E+00	3.43E+01	3.43E+01	1.71E-02	1.13E-01	4.69E-03
Chrysene	2.38E-06	1.00E-07	1.33E-04	5.81E-02	5.82E-02	2.91E-05	1.91E-04	7.97E-06
Cumene		5.30E-06	0.00E+00	3.08E+00	3.08E+00	1.54E-03	1.01E-02	4.22E-04
Dibenz(a,h)anthracene	1.67E-06		9.30E-05	0.00E+00	9.30E-05	4.65E-08	3.06E-07	1.27E-08
Dichlorobenzene			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dimethyl sulfate		4.80E-05	0.00E+00	2.79E+01	2.79E+01	1.39E-02	9.16E-02	3.82E-03
2,4-Dinitrotoluene		2.80E-07	0.00E+00	1.63E+01	1.63E-01	8.13E-05	5.34E-04	2.23E-05
Ethyl benzene	6.36E-05	9.40E-05	3.54E-03	5.48E+01	5.48E+01	2.73E-02	1.79E-01	7.48E-03
Ethyl chloride		4.20E-05	0.00E+00	2.44E+01	2.44E+01	1.22E-02	8.02E-02	3.34E-03
Ethylene dichloride		4.00E-05	0.00E+00	2.32E+01	2.32E+01	1.16E-02	7.64E-02	3.18E-03
Ethylene dibromide		1.20E-06	0.00E+00	6.97E-01	6.97E-01	3.49E-04	2.29E-03	9.54E-05
Fluoranthene	4.84E-06	7.10E-07	2.70E-04	4.13E-01	4.13E-01	2.06E-04	1.36E-03	5.65E-05
Fluorene	4.47E-06	9.10E-07	2.49E-04	5.29E-01	5.29E-01	2.64E-04	1.74E-03	7.24E-05
Formaldehyde	3.30E-02	2.40E-04	1.84E+00	1.39E+02	1.41E+02	7.06E-02	4.64E-01	1.93E-02
Hexane	0	6.70E-05	0.00E+00	3.89E+01	3.89E+01	1.95E-02	1.28E-01	5.33E-03
Indeno(1,2,3-c,d)pyrene	2.14E-08	6.10E-08	1.19E-04	3.54E-02	3.56E-02	1.78E-05	1.17E-04	4.87E-06
Isophorone		5.80E-04	0.00E+00	3.37E+02	3.37E+02	1.68E-01	1.11E+00	4.61E-02
Methyl bromide		1.60E-04	0.00E+00	9.30E+01	9.30E+01	4.65E-02	3.05E-01	1.27E-02
Methyl chloride		5.30E-04	0.00E+00	3.08E+02	3.08E+02	1.54E-01	1.01E+00	4.22E-02
Methyl Chloroform	2.36E-04	2.00E-05	1.31E-02	1.16E+01	1.16E+01	5.82E-03	3.82E-02	1.59E-03
Methyl hydrazine		1.70E-04	0.00E+00	9.88E+01	9.88E+01	4.94E-02	3.25E-01	1.35E-02
Methyl methacrylate		2.00E-05	0.00E+00	1.18E+01	1.18E+01	5.81E-03	3.82E-02	1.59E-03
Methyl tert butyl ether		3.50E-05	0.00E+00	2.03E+01	2.03E+01	1.02E-02	6.68E-02	2.78E-03
Methyls chloride		2.90E-04	0.00E+00	1.68E+02	1.68E+02	8.42E-02	5.54E-01	2.31E-02
Naphthalene	1.13E-03	1.30E-05	6.29E-02	7.55E+00	7.62E+00	3.81E-03	2.50E-02	1.04E-03
Phenanthrene	1.05E-05	2.70E-06	5.85E-04	1.57E+00	1.57E+00	7.85E-04	5.16E-03	2.15E-04
Phenol		1.60E-05	0.00E+00	9.30E+00	9.30E+00	4.65E-03	3.05E-02	1.27E-03
Propionaldehyde		3.80E-04	0.00E+00	2.21E+02	2.21E+02	1.10E-01	7.25E-01	3.02E-02
Pyrene	4.25E-06	3.30E-07	2.37E-04	1.92E-01	1.92E-01	9.60E-05	6.31E-04	2.63E-05
Styrene		2.50E-05	0.00E+00	1.45E+01	1.45E+01	7.26E-03	4.77E-02	1.99E-03
Tetrachloroethylene		4.30E-05	0.00E+00	2.50E+01	2.50E+01	1.25E-02	8.21E-02	3.42E-03
Toluene	6.20E-03	2.40E-04	3.45E-01	1.39E+02	1.40E+02	6.99E-02	4.59E-01	1.91E-02
o-Xylene	1.09E-04	3.70E-05	6.07E-03	2.15E+01	2.15E+01	1.08E-02	7.06E-02	2.94E-03
Vinyl acetate		7.80E-06	0.00E+00	4.42E+00	4.42E+00	2.21E-03	1.45E-02	6.04E-04

(a) AP-42 Table 1.3-9

(b) AP-42 Table 1.1-13, AP-42 Table 1.1-14

Part 3 Others:	EF		Est Emis		Total (lb/yr)	Est Emis		
	Fuel oil (lb/10 ¹² Btu)	Coal ^a (lb/10 ¹² Btu)	Fuel oil (lb/yr)	Coal (lb/yr)		Annual (tpy)	Daily (lb/dy)	Hourly (lb/hr)
HCL		1.57E+03	0.00E+00	2.03E+04	2.03E+04	1.01E+01	6.67E+01	2.78E+00
HF		5.64E+01	0.00E+00	7.29E+02	7.29E+02	3.64E-01	2.39E+00	9.98E-02
HClN		9.62E+01	0.00E+00	1.24E+03	1.24E+03	6.21E-01	4.08E+00	1.70E-01

(a) Stack test, 2010 (ICR)

EBFP

Data for Emissions Calculations:

MMBtu No. 2 fuel oil: 28.0028
 days operation: 43
 hours operation: 214

Part 1 Metals:	EF Oil ^a (lb/10 ¹² Btu)	Est Emis			
		(lb/yr)	Annual (tpy)	Daily (lb/dy)	Hourly (lb/hr)
Antimony		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Arsenic	4.00E+00	1.12E-04	5.60E-08	2.60E-06	5.23E-06
Beryllium	3.00E+00	8.40E-05	4.20E-08	1.95E-06	3.93E-06
Cadmium	3.00E+00	8.40E-05	4.20E-08	1.95E-06	3.93E-06
Chromium	3.00E+00	8.40E-05	4.20E-08	1.95E-06	3.93E-06
Cobalt		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Lead	9.00E+00	2.52E-04	1.26E-07	5.86E-06	1.18E-05
Manganese	6.00E+00	1.68E-04	8.40E-08	3.91E-06	7.85E-06
Nickel	3.00E+00	8.40E-05	4.20E-08	1.95E-06	3.93E-06
Selenium	1.50E+01	4.20E-04	2.10E-07	9.77E-06	1.96E-05

(a) AP-42 Table 1.3-10

Part 2 Organics:	EF Oil ^a (lb/MMBtu)	Est Emis			
		(lb/yr)	Annual (tpy)	Daily (lb/dy)	Hourly (lb/hr)
Acenaphthene	1.42E-06	3.98E-05	1.99E-08	9.25E-07	1.86E-06
Acenaphthylene	5.06E-06	1.42E-04	7.08E-08	3.30E-06	6.62E-06
Acetaldehyde	7.67E-04	2.15E-02	1.07E-05	4.99E-04	1.00E-03
Acetophenone		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acrolein	9.25E-05	2.59E-03	1.30E-06	6.02E-05	1.21E-04
Anthracene	1.87E-06	5.24E-05	2.62E-08	1.22E-06	2.45E-06
Benzo(a)anthracene	1.68E-06	4.70E-05	2.35E-08	1.09E-06	2.20E-06
Benzene	9.33E-04	2.61E-02	1.31E-05	6.08E-04	1.22E-03
Benzo(a)pyrene	1.88E-07	5.26E-06	2.63E-09	1.22E-07	2.46E-07
Benzo(b)fluoranthene	9.91E-08	2.78E-06	1.39E-09	6.46E-08	1.30E-07
Benzo(ghi)perylene	4.89E-07	1.37E-05	6.85E-09	3.18E-07	6.40E-07
Benzo(k)fluoranthene	1.55E-07	4.34E-06	2.17E-09	1.01E-07	2.03E-07
Benzyl chloride		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biphenyl		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Bis(2-ethylhexyl)phthalate		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Bromoform		0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,3-Butadiene	3.91E-05	1.09E-03	5.47E-07	2.55E-05	5.12E-05
Carbon disulfide		0.00E+00	0.00E+00	0.00E+00	0.00E+00
2-Chloroacetophenone		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chlorobenzene		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chloroform		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chrysene	3.53E-07	9.88E-06	4.94E-09	2.30E-07	4.62E-07
Cumene		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dibenzo(a,h)anthracene	5.83E-07	1.63E-05	8.16E-09	3.80E-07	7.63E-07
Dichlorobenzene		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dimethyl sulfate		0.00E+00	0.00E+00	0.00E+00	0.00E+00
2,4-Dinitrotoluene		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethylbenzene		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl chloride		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethylene dichloride		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethylene dibromide		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fluoranthene	7.61E-06	2.13E-04	1.07E-07	4.96E-06	9.98E-06
Fluorene	2.92E-05	8.18E-04	4.09E-07	1.90E-05	3.82E-05
Formaldehyde	1.18E-03	3.30E-02	1.65E-05	7.68E-04	1.54E-03
Hexane		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indeno(1,2,3-c,d)pyrene	3.75E-07	1.05E-05	5.25E-09	2.44E-07	4.91E-07
Isophorone		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl bromide		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl chloride		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl Chloroform		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl hydrazine		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl methacrylate		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl tert butyl ether		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methylene chloride		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Naphthalene	8.48E-05	2.37E-03	1.19E-06	5.52E-05	1.11E-04
Phenanthrene	2.94E-05	8.23E-04	4.12E-07	1.91E-05	3.85E-05
Phenol		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Propionaldehyde		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pyrene	4.78E-06	1.34E-04	6.69E-08	3.11E-06	6.25E-06
Styrene		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tetrachloroethylene		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Toluene	4.09E-04	1.15E-02	5.73E-06	2.66E-04	5.35E-04
o-Xylene	2.85E-04	7.98E-03	3.99E-06	1.86E-04	3.73E-04
Vinyl acetate		0.00E+00	0.00E+00	0.00E+00	0.00E+00

(a) AP-42 Table 3.3-2

Combined Fuel Burning Equipment

Part 1 Metals:	Est Emis		RQ (tpy)	RQ (lb/hr)	Reportable? Y/N
	Annual (tpy)	Hourly (lb/hr)			
Antimony	9.05E-05	2.48E-05	0.01	0.001	N
Arsenic	7.78E-04	2.18E-04	0.0001	0.0001	Y
Beryllium	1.08E-04	3.35E-05	0.00001	0.00001	Y
Cadmium	7.68E-04	2.14E-04	0.0001	0.0001	Y
Chromium	7.25E-03	1.99E-03	0.01	0.001	Y
Cobalt	1.12E-03	3.06E-04	0.001	0.0001	Y
Lead	2.26E-03	6.32E-04	0.001	0.0001	Y
Manganese	5.22E-03	1.44E-03	0.01	0.001	Y
Nickel	7.64E-03	2.09E-03	0.001	0.001	Y
Selenium	4.86E-04	1.53E-04	0.01	0.001	N

Part 2 Organics:	Est Emis		RQ (tpy)	RQ (lb/hr)	Reportable? Y/N
	Annual (tpy)	Hourly (lb/hr)			
Acenaphthene	1.49E-04	4.26E-05	0.01	0.001	N
Acenaphthylene	7.27E-05	2.65E-05	0.1	0.01	N
Acetaldehyde	1.66E-01	4.63E-02	0.1	0.1	Y
Acetophenone	4.36E-03	1.19E-03	1	0.1	N
Acrolein	8.42E-02	2.32E-02	0.01	0.001	Y
Anthracene	6.11E-05	1.92E-05	0.01	0.001	N
Benzo(a)anthracene	2.34E-05	8.59E-06	0.001	0.001	N
Benzene	3.78E-01	1.05E-01	0.1	0.01	Y
Benzo(a)pyrene	1.10E-05	3.27E-06	0.0001	0.001	N
Benzo(b)fluoranthene	3.20E-05	8.89E-06	0.001	0.1	N
Benzo(ghi)perylene	7.91E-06	2.80E-06	0.01	0.001	N
Benzo(k)fluoranthene	3.20E-05	8.96E-06	0.01	0.01	N
Benzyl chloride	2.03E-01	5.57E-02	0.1	0.01	Y
Biphenyl	4.94E-04	1.35E-04	0.1	0.01	N
Bis(2-ethylhexyl)phthalate	2.12E-02	5.81E-03	0.1	0.01	N
Bromoform	1.13E-02	3.10E-03	0.1	0.01	N
1,3-Butadiene	5.47E-07	5.12E-05	0.001	0.01	N
Carbon disulfide	3.78E-02	1.03E-02	1	0.1	N
2-Chloroacetophenone	2.03E-03	5.57E-04	0.01	0.001	N
Chlorobenzene	6.39E-03	1.75E-03	1	0.1	N
Chloroform	1.71E-02	4.69E-03	0.01	0.1	Y
Chrysene	2.91E-05	8.43E-06	0.01	0.001	N
Cumene	1.54E-03	4.22E-04	10	1	N
Dibenzo(a,h)anthracene	5.47E-08	7.76E-07	0.0001	0.0001	N
Dichlorobenzene	0.00E+00	0.00E+00	0.1	1	N
Dimethyl sulfate	1.39E-02	3.82E-03	0.01	0.001	Y
2,4-Dinitrotoluene	8.13E-05	2.23E-05	0.1	0.01	N
Ethylbenzene	2.73E-02	7.48E-03	10	1	N
Ethyl chloride	1.22E-02	3.34E-03	0.01	0.001	Y
Ethylene dichloride	1.16E-02	3.18E-03	0.01	0.1	Y
Ethylene dibromide	3.49E-04	9.54E-05	0.001	1	N
Fluoranthene	2.06E-04	6.65E-05	0.1	0.1	N
Fluorene	2.65E-04	1.11E-04	0.01	0.001	N
Formaldehyde	7.07E-02	2.09E-02	0.01	0.001	Y
Hexane	1.95E-02	5.33E-03	10	1	N
Indeno(1,2,3-c,d)pyrene	1.78E-05	5.38E-06	0.001	0.001	N
Isopharone	1.68E-01	4.61E-02	1	0.1	N
Methyl bromide	4.65E-02	1.27E-02	0.01	0.01	Y
Methyl chloride	1.54E-01	4.22E-02	0.1	0.1	Y
Methyl Chloroform	5.82E-03	1.59E-03	10	10	N
Methyl hydrazine	4.94E-02	1.35E-02	0.001	0.0001	Y
Methyl methacrylate	5.81E-03	1.59E-03	10	1	N
Methyl tert butyl ether	1.02E-02	2.78E-03	10	1	N
Methylene chloride	8.42E-02	2.31E-02	1	1	N
Naphthalene	3.81E-03	1.15E-03	1	0.1	N
Phenanthrene	7.86E-04	2.53E-04	0.01	0.01	N
Phenol	4.65E-03	1.27E-03	0.1	1	N
Propionaldehyde	1.10E-01	3.02E-02	0.1	0.1	Y
Pyrene	9.60E-05	3.25E-05	0.01	0.001	N
Styrene	7.26E-03	1.99E-03	1	1	N
Tetrachloroethylene	1.25E-02	3.42E-03	10	1	N
Toluene	6.99E-02	1.97E-02	10	1	N
o-Xylene	1.08E-02	3.32E-03	10	1	N
Vinyl acetate	2.21E-03	6.04E-04	1	0.1	N

Part 3 Others:	Est Emis		RQ (tpy)	RQ (lb/hr)	Reportable? Y/N
	Annual (tpy)	Hourly (lb/hr)			
HCL	1.01E+01	2.78E+00	0.1	0.1	Y
HF	3.64E-01	9.98E-02	0.1	0.01	Y
HCN	6.21E-01	1.70E-01	0.1	0.01	Y

Air Toxics - Estimated Releases

AES Warrior Run
Maryland Emissions Certification CY

2018

ACFB

Data for Emissions Calculations:

Tons of coal: 580994
MMBtu coal 12924470
days of operation coal: 304
hours operation coal: 7305
Kgal No. 2 fuel oil: 55.700
MMBtu No. 2 fuel oil: 7798

Part 1 Metals:	EF		Est Emis		Total (lb/yr)	Est Emis		
	Fuel oil ^a (lb/10 ¹² Btu)	Coal ^b (lb/10 ¹² Btu)	Fuel oil (lb/yr)	Coal (lb/yr)		Annual (tpy)	Daily (lb/dy)	Hourly (lb/hr)
Mercury	1.00E-01	5.91E-03	7.80E-04	7.64E-02	7.72E-02	3.86E-05	2.54E-04	1.06E-05

(a) 0.014 lb/10⁶ gal for #2 distillate oil from nysesda (New York State Energy Research and Development Authority), Determination of Sulfur and Toxic Metals Content of Distillate and Residual Oil in the State of New York, Final Report 10-31, December 2010. Assuming heat content of distillate oil is 140,000 Btu/gal.

(b) Stack test, 2017 MATS

EBFP

Data for Emissions Calculations:

MMBtu No. 2 fuel oil: 28.0028
days operation: 43
hours operation: 21.4

Part 1 Metals:	EF Oil ^a (lb/10 ¹² Btu)	Est Emis (lb/yr)	Est Emis		
			Annual (tpy)	Daily (lb/dy)	Hourly (lb/hr)
Mercury	1.00E-01	2.80E-06	1.40E-09	6.51E-08	1.31E-07

(a) 0.014 lb/10⁶ gal for #2 distillate oil from nysesda (New York State Energy Research and Development

Combined Fuel Burning Equipment

Part 1 Metals:	Annual (tpy)	Est Emis Hourly (lb/hr)	RQ	RQ	Reportable? Y/N
			(tpy)	(lb/hr)	
Mercury	3.86E-05	1.07E-05	0.001	0.0001	N

Air Toxics - Estimated Releases

AES Warrior Run
Maryland Emissions Certification CY

2018

Combined non-fuel burn and fuel burn equipment

Part 1 Metals:	Est Emls		RQ (tpy)	RQ (lb/hr)	Reportable? Y/N
	Annual (tpy)	Hourly (lb/hr)			
Antimony	9.05E-05	2.48E-05	0.01	0.001	N
Arsenic	7.79E-04	2.19E-04	0.0001	0.0001	Y
Beryllium	1.08E-04	3.35E-05	0.00001	0.00001	Y
Cadmium	7.70E-04	2.18E-04	0.0001	0.0001	Y
Chromium	7.25E-03	1.99E-03	0.01	0.001	Y
Cobalt	1.12E-03	3.06E-04	0.001	0.0001	Y
Lead	2.27E-03	6.34E-04	0.001	0.0001	Y
Manganese	5.22E-03	1.44E-03	0.01	0.001	Y
Mercury	3.91E-05	1.18E-05	0.001	0.0001	N
Nickel	7.64E-03	2.10E-03	0.001	0.001	Y
Selenium	4.87E-04	1.53E-04	0.01	0.001	N

Part 2 Organics:	Est Emls		RQ (tpy)	RQ (lb/hr)	Reportable? Y/N
	Annual (tpy)	Hourly (lb/hr)			
Acenaphthene	1.48E-04	4.26E-05	0.01	0.001	N
Acenaphthylene	7.27E-05	2.65E-05	0.1	0.01	N
Acetaldehyde	1.66E-01	4.63E-02	0.1	0.1	Y
Acetophenone	4.36E-03	1.19E-03	1	0.1	N
Acrolein	8.42E-02	2.32E-02	0.01	0.001	Y
Anthracene	6.11E-05	1.92E-05	0.01	0.001	N
Benz(a)anthracene	2.34E-05	8.60E-06	0.001	0.001	N
Benzene	3.78E-01	1.05E-01	0.1	0.01	Y
Benzo(a)pyrene	1.10E-05	3.27E-06	0.0001	0.001	N
Benzo(b)fluoranthene	3.20E-05	8.90E-06	0.001	0.1	N
Benzo(ghi)perylene	7.92E-06	2.81E-06	0.01	0.001	N
Benzo(k)fluoranthene	3.20E-05	8.97E-06	0.01	0.01	N
Benzyl chloride	2.03E-01	5.57E-02	0.1	0.01	Y
Biphenyl	4.94E-04	1.35E-04	0.1	0.01	N
Bis(2-ethylhexyl)phthalate	2.12E-02	5.81E-03	0.1	0.01	N
Bromoform	1.13E-02	3.10E-03	0.1	0.01	N
1,3-Butadiene	5.47E-07	5.12E-05	0.001	0.01	N
Carbon disulfide	3.78E-02	1.03E-02	1	0.1	N
2-Chloroacetophenone	2.03E-03	5.57E-04	0.01	0.001	N
Chlorobenzene	6.39E-03	1.75E-03	1	0.1	N
Chloroform	1.71E-02	4.69E-03	0.01	0.1	Y
Chrysene	2.91E-05	8.44E-06	0.01	0.001	N
Cumene	1.54E-03	4.22E-04	10	1	N
Dibenzo(a,h)anthracene	5.69E-08	7.80E-07	0.0001	0.0001	N
Dichlorobenzene	2.21E-06	4.15E-06	0.1	1	N
Dimethyl sulfate	1.39E-02	3.82E-03	0.01	0.001	Y
2,4-Dinitrotoluene	8.13E-05	2.23E-05	0.1	0.01	N
Ethylbenzene	2.73E-02	7.48E-03	10	1	N
Ethyl chloride	1.22E-02	3.34E-03	0.01	0.001	Y
Ethylene dichloride	1.16E-02	3.18E-03	0.01	0.1	Y
Ethylene dibromide	3.49E-04	9.54E-05	0.001	1	N
Fluoranthene	2.06E-04	6.65E-05	0.1	0.1	N
Fluorene	2.65E-04	1.11E-04	0.01	0.001	N
Formaldehyde	7.08E-02	2.11E-02	0.01	0.001	Y
Hexane	2.28E-02	1.16E-02	10	1	N
Indeno(1,2,3-c,d)pyrene	1.78E-05	5.36E-06	0.001	0.001	N
Isophorone	1.68E-01	4.81E-02	1	0.1	N
Methyl bromide	4.65E-02	1.27E-02	0.01	0.01	Y
Methyl chloride	1.54E-01	4.22E-02	0.1	0.1	Y
Methyl Chloroform	5.82E-03	1.59E-03	10	10	N
Methyl hydrazine	4.94E-02	1.35E-02	0.001	0.0001	Y
Methyl methacrylate	5.81E-03	1.59E-03	10	1	N
Methyl tert butyl ether	1.02E-02	2.78E-03	10	1	N
Methylene chloride	8.42E-02	2.31E-02	1	1	N
Naphthalene	3.81E-03	1.16E-03	1	0.1	N
Phenanthrene	7.85E-04	2.53E-04	0.01	0.01	N
Phenol	4.85E-03	1.27E-03	0.1	1	N
Propionaldehyde	1.10E-01	3.02E-02	0.1	0.1	Y
Pyrene	9.61E-05	3.26E-05	0.01	0.001	N
Styrene	7.26E-03	1.99E-03	1	1	N
Tetrachloroethylene	1.25E-02	3.42E-03	10	1	N
Toluene	6.99E-02	1.97E-02	10	1	N
o-Xylene	1.08E-02	3.32E-03	10	1	N
Vinyl acetate	2.21E-03	6.04E-04	1	0.1	N

Part 3 Others:	Est Emls		RQ (tpy)	RQ (lb/hr)	Reportable? Y/N
	Annual (tpy)	Hourly (lb/hr)			
HCL	1.01E+01	2.78E+00	0.1	0.1	Y
HF	3.64E-01	9.98E-02	0.1	0.01	Y
HCN	6.21E-01	1.70E-01	0.1	0.01	Y

GHG Emission Factors

CO₂

ACFB

CEMs CO₂: 1325907.8 tpy CEMs measurement

Diesel

HHV 0.138 MMBtu/gal 40 CFR 98 Subpart C Table C-1
 CO₂ EF 73.96 kg/MMBtu 40 CFR 98 Subpart C Table C-1

NG

HHV 1.028E-03 MMBtu/scf 40 CFR 98 Subpart C Table C-1
 CO₂ EF 53.02 kg/MMBtu 40 CFR 98 Subpart C Table C-1

CH₄

Coal

CH₄ EF: 1.1E-02 kg/MMBtu 40 CFR 98 Subpart C Table C-2

Diesel

HHV 0.138 MMBtu/gal 40 CFR 98 Subpart C Table C-1
 CH₄ EF: 3.0E-03 kg/MMBtu 40 CFR 98 Subpart C Table C-2

NG

HHV 1.028E-03 MMBtu/scf 40 CFR 98 Subpart C Table C-1
 CH₄ EF: 1.0E-03 kg/MMBtu 40 CFR 98 Subpart C Table C-2

N₂O

Coal

N₂O EF: 1.6E-03 kg/MMBtu 40 CFR 98 Subpart C Table C-2

Diesel

HHV 0.138 MMBtu/gal 40 CFR 98 Subpart C Table C-1
 N₂O EF: 6.0E-04 kg/MMBtu 40 CFR 98 Subpart C Table C-2

NG

HHV 1.028E-03 MMBtu/scf 40 CFR 98 Subpart C Table C-1
 N₂O EF: 1.0E-04 kg/MMBtu 40 CFR 98 Subpart C Table C-2

GHG Emissions

ACFB

Pollutant	Coal EF (lb/MMBtu)	Coal Use (ton/yr)	Coal HI (MMBtu/yr)	Diesel EF (lb/MMBtu)	Diesel Use (10 ³ gal/yr)	Diesel HI (MMBtu/yr)	(tpy)	Emissions			Operating Schedule	
								(lb/dy)	(lb/hr)	(lb/hr)	(hr/dy)	(dy/yr)
CO ₂							1325907.8	8712187.4	363007.8	24.0	304	
CH ₄	2.43E-02	580,994	12,924,470	6.61E-03	55.700	7,687	156.7	1029.9	42.9	24.0	304	
N ₂ O	3.53E-03	580,994	12,924,470	1.32E-03	55.700	7,687	22.8	149.8	6.2	24.0	304	

Limestone Dryers

Pollutant	NG EF (lb/MMBtu)	NG Use (MMscf/yr)	NG HI (MMBtu/yr)	Diesel EF (lb/MMBtu)	Diesel Use (10 ³ gal/yr)	Diesel HI (MMBtu/yr)	(tpy)	Emissions			Operating Schedule	
								(lb/dy)	(lb/hr)	(lb/hr)	(hr/dy)	(dy/yr)
CO ₂	116.89	3.202900	3,293	163.05	0.000	0.000	192.4	1287.2	190.2	6.8	299	
CH ₄	2.20E-03	3.202900	3,293	6.61E-03	0.000	0.000	0.0	0.0	0.0	6.8	299	
N ₂ O	2.20E-04	3.202900	3,293	1.32E-03	0.000	0.000	0.0	0.0	0.0	6.8	299	

EBFP

Pollutant	Diesel EF (lb/MMBtu)	Diesel Use (10 ³ gal/yr)	Diesel HI (MMBtu/yr)	(tpy)	Emissions			Operating Schedule	
					(lb/dy)	(lb/hr)	(lb/hr)	(hr/dy)	(dy/yr)
CO ₂	163.05	0.200	28	2.3	104.7	210.3	0.5	43	
CH ₄	6.61E-03	0.200	28	0.0	0.0	0.0	0.5	43	
N ₂ O	1.32E-03	0.200	28	0.0	0.0	0.0	0.5	43	

Space Heaters

Pollutant	NG EF (lb/MMBtu)	NG Use (MMscf/yr)	NG HI (MMBtu/yr)	(tpy)	Emissions			Operating Schedule	
					(lb/dy)	(lb/hr)	(lb/hr)	(hr/dy)	(dy/yr)
CO ₂	116.89	0.481000	494	28.9	1806.2	75.3	24	32	
CH ₄	2.20E-03	0.481000	494	0.0	0.0	0.0	24	32	
N ₂ O	2.20E-04	0.481000	494	0.0	0.0	0.0	24	32	

Cumulative Emissions

Plant: WARR
Cumulative Emissions for: 2018

UNIT01							
	CO2T/HR TONS	HEATIN MMBTU/HR	NOX#/HR TONS	SO2#/HR TONS	UNITLOAD MW	UNITON OpTime	UNITON OpHrs
January	144,260.6	1,406,054	55.6	114.3	123,187	743.98	744
February	115,194.9	1,122,732	39.8	90.9	94,988	671.98	672
March	140,842.6	1,372,730	50.3	109.4	121,313	744.00	744
April	65,488.7	638,993	24.5	50.6	55,450	373.72	376
May	133,708.3	1,303,192	47.0	105.1	115,220	744.00	744
June	119,013.6	1,159,983	45.1	94.3	101,371	720.00	720
July	126,108.8	1,229,132	47.9	102.0	107,011	744.00	744
August	141,715.7	1,381,252	53.4	115.5	122,536	744.00	744
September	76,357.6	744,229	28.6	60.5	66,325	376.93	377
October	0.0	0	0.0	0.0	0	0.00	0
November	131,974.7	1,287,001	53.9	104.3	117,293	695.25	696
December	131,242.2	1,279,170	48.6	100.7	114,206	744.00	744
Quarter 1	400,298.0	3,901,516	145.7	314.6	339,488	2,159.96	2,160
Quarter 2	318,210.6	3,102,168	116.7	250.0	272,041	1,837.72	1,840
Quarter 3	344,182.1	3,354,613	129.9	278.0	295,872	1,864.93	1,865
Quarter 4	263,216.9	2,566,171	102.5	205.0	231,499	1,439.25	1,440
YTD	1,325,907.6	12,924,468	494.8	1,047.6	1,138,900	7,301.86	7,305
Ozone Quarter 2		2,463,175	92.2			1,464.00	1,464
Ozone Quarter 3		3,354,613	129.9			1,864.93	1,865
Ozone YTD		5,817,788	222.1			3,328.93	3,329

Start Date: 1/1/2018

End Date: 12/31/2018



Limestone Gas Meter Reading Report

<i>Date</i>	<i>Start Up Meter Reading</i>	<i>Shut Down Meter Reading</i>	<i>Amount Used</i>	<i>Boiler Usage</i>	<i>Total Usage</i>	<i>Memo</i>	<i>Sys #1 Start Time</i>	<i>Sys #1 Stop Time</i>	<i>Sys #1 Til Run Time</i>	<i>Sys #2 Start Time</i>	<i>Sys #2 Stop Time</i>	<i>Sys #2 Til Run Time</i>
<i>January 2018</i>												
1/1/2018	586965	587265	300	199	499		5:20	12:30	7:10	5:20	12:30	7:10
1/2/2018	587265	587775	510	0	510		5:35	13:45	8:10	5:35	14:30	8:55
1/3/2018	587775	588405	630	123	753		5:45	16:00	10:15	6:20	16:25	10:05
1/4/2018	588528	588800	272	70	342		5:35	12:35	7:00	5:35	12:35	7:00
1/5/2018	588870	589445	575	0	575		5:10	16:00	10:50	5:10	16:05	10:55
1/6/2018	589445	590075	630	225	855		6:00	16:00	10:00	6:00	16:05	10:05
1/7/2018	0	0	0	0	0					12:25	15:10	2:45
1/7/2018	590300	590677	377	146	523		6:25	15:00	8:35	6:25	11:30	5:05
1/8/2018	590823	591122	299	130	429		5:50	14:00	8:10	5:50	14:00	8:10
1/9/2018	591252	591528	276	80	356		6:05	14:10	8:05	6:05	14:15	8:10
1/10/2018	591608	591794	186	148	334		10:30	12:10	1:40	0:20	12:10	11:50
1/11/2018	591942	592138	196	121	317		5:45	13:05	7:20	5:45	13:05	7:20
1/12/2018	592259	592425	166	131	297		6:00	13:20	7:20	6:00	13:20	7:20
1/13/2018	592556	592712	156	164	320		6:38	12:40	6:02	6:40	12:40	6:00
1/14/2018	0	0	0	0	0		12:30	14:10	1:40	12:30	14:10	1:40
1/14/2018	592876	593279	403	104	507		5:30	8:55	3:25	5:30	8:55	3:25
1/15/2018	593383	593496	113	152	265		8:00	13:00	5:00	8:00	11:50	3:50
1/16/2018	593648	593924	276	0	276		5:45	16:30	10:45	5:45	16:30	10:45
1/17/2018										14:25	14:50	0:25
1/17/2018	593924	594271	347	142	489		5:40	14:25	8:45	5:40	11:30	5:50
1/18/2018	594413	594635	222	134	356		5:40	13:50	8:10	5:40	13:55	8:15
1/19/2018	594769	594976	207	0	207		5:40	13:50	8:10	5:40	13:50	8:10
1/20/2018	594976	595248	272	49	321		5:30	14:00	8:30	5:30	14:00	8:30
1/21/2018	595297	595362	65	0	65		6:00	12:50	6:50	6:00	13:00	7:00
1/22/2018	595362	595418	56				5:55	10:45	4:50	5:55	10:50	4:55

<i>Date</i>	<i>Start Up Meter Reading</i>	<i>Shut Down Meter Reading</i>	<i>Amount Used</i>	<i>Boiler Usage</i>	<i>Total Usage</i>	<i>Memo</i>	<i>Sys #1 Start Time</i>	<i>Sys #1 Stop Time</i>	<i>Sys #1 Til Run Time</i>	<i>Sys #2 Start Time</i>	<i>Sys #2 Stop Time</i>	<i>Sys #2 Til Run Time</i>
1/23/2018	595418	595491	73	0	73		5:40	12:00	6:20	5:40	12:00	6:20
1/24/2018	595491	595555	64	0	64		7:55	13:50	5:55	6:05	13:50	7:45
1/25/2018	595555	595639	84	0	84		6:00	13:10	7:10	6:00	13:10	7:10
1/26/2018	595639	595720	81	0	81		5:30	13:25	7:55	5:30	13:25	7:55
1/27/2018	595720	595777	57	0	57		6:50	12:55	6:05	6:50	12:55	6:05
1/28/2018	595771	595841	70	0	70		6:35	12:20	5:45	6:35	12:20	5:45
1/29/2018	595841	595914	73	0	73		6:45	13:05	6:20	6:45	13:05	6:20
1/30/2018	595914	595992	78	0	78		6:10	13:35	7:25	6:10	13:35	7:25
1/31/2018	595992	596260	268	145	413		6:15	13:50	7:35	6:15	13:50	7:35

Sys#1 Max Hrs. Total Total Run Time
Sys#2 Max Hrs. x 100 cu.ft.

February 2018

2/1/2018	596405	596530	125	148	273		5:45	12:30	6:45	5:45	12:30	6:45
2/2/2018	596678	596794	116	183	299		6:38	12:00	5:22	6:35	12:00	5:25
2/3/2018	596977	597307	330	143	473		5:15	13:55	8:40	5:15	13:55	8:40
2/4/2018	597450	597666	216	159	375		6:15	12:00	5:45	6:15	12:00	5:45
2/5/2018	597825	598119	294	135	429		5:55	12:30	6:35	5:55	15:15	9:20
2/6/2018	598254	598523	269	150	419		5:50	12:55	7:05	5:50	12:55	7:05
2/7/2018	598673	598932	259	154	413		5:25	13:20	7:55	5:25	13:20	7:55
2/8/2018	599086	599415	329	141	470		6:00	14:30	8:30	6:00	14:30	8:30
2/9/2018	599556	599800	244	168	412		6:00	13:00	7:00	6:00	13:00	7:00
2/10/2018	599968	600211	243	113	356		7:10	13:50	6:40	7:10	13:50	6:40
2/11/2018	600324	600479	155	0	155		7:35	12:40	5:05	7:35	12:40	5:05
2/12/2018	600479	600603	124	0	124		7:05	12:25	5:20	7:05	12:05	5:00
2/13/2018	600603	600739	136	0	136		6:30	12:40	6:10	6:30	12:40	6:10
2/14/2018	600739	600876	137	0	137		8:30	14:20	5:50	7:15	14:20	7:05
2/15/2018	600876	600971	95	0	95		6:40	11:30	4:50	6:40	11:30	4:50
2/16/2018	600971	601075	104	0	104		6:40	11:25	4:45	6:40	11:25	4:45
2/17/2018	601075	601218	143	0	143		6:20	13:00	6:40	6:20	13:00	6:40
2/18/2018	601218	601359	141	0	141		5:50	12:40	6:50	5:50	12:40	6:50
2/19/2018	601359	601501	142	0	142		6:30	12:05	5:35	6:30	12:05	5:35

<i>Date</i>	<i>Start Up Meter Reading</i>	<i>Shut Down Meter Reading</i>	<i>Amount Used</i>	<i>Boiler Usage</i>	<i>Total Usage</i>	<i>Memo</i>	<i>Sys #1 Start Time</i>	<i>Sys #1 Stop Time</i>	<i>Sys #1 Til Run Time</i>	<i>Sys #2 Start Time</i>	<i>Sys #2 Stop Time</i>	<i>Sys #2 Til Run Time</i>
2/20/2018	601501	601628	127	0	127		6:20	12:02	5:42	6:20	12:02	5:42
2/21/2018	601628	601717	89	0	89		6:10	12:20	6:10	6:10	12:20	6:10
2/22/2018	601717	601795	78	0	78		6:00	12:05	6:05	6:00	12:05	6:05
2/23/2018	601795	601873	78	0	78		6:00	11:00	5:00	6:00	11:10	5:10
2/24/2018	601873	601937	64	0	64		6:00	12:40	6:40	6:00	12:40	6:40
2/25/2018	601937	602046	109	0	109		6:25	11:20	4:55	6:25	11:20	4:55
2/26/2018	602046	602172	126	0	126		6:30	12:15	5:45	6:30	12:15	5:45
2/27/2018	602172	602314	142	0	142		6:30	13:05	6:35	6:30	13:05	6:35
2/28/2018	602314	602431	117	0	117		6:10	12:00	5:50	6:10	12:00	5:50

Sys#1 Max Hrs. Total Total Run Time
Sys#2 Max Hrs. x 100 cu.ft.

March 2018

3/1/2018	602431	602502	71	0	71		5:40	12:05	6:25	5:40	12:05	6:25
3/2/2018	602502	602567	65	0	65		6:00	13:00	7:00	6:00	13:00	7:00
3/3/2018	602567	602630	63	0	63		5:25	12:00	6:35	5:25	12:00	6:35
3/4/2018	602630	602697	67	0	67		6:10	13:20	7:10	6:10	13:20	7:10
3/5/2018	602697	602824	127	0	127		6:15	12:27	6:12	6:15	12:27	6:12
3/6/2018	602824	602903	79	0	79		5:10	13:20	8:10	5:10	13:20	8:10
3/7/2018	602903	602990	87	0	87		4:52	12:45	7:53	4:52	12:45	7:53
3/8/2018	602990	603070	80	0	80		5:25	13:55	8:30	5:25	13:55	8:30
3/9/2018	603070	603147	77	0	77		5:20	13:30	8:10	5:20	13:30	8:10
3/10/2018	603147	603229	82	0	82		5:20	13:30	8:10	5:20	13:30	8:10
3/11/2018	603229	603287	58	0	58		5:55	11:40	5:45	5:55	11:40	5:45
3/12/2018	603287	603367	80	0	80		5:15	13:20	8:05	5:15	13:20	8:05
3/13/2018	603367	603479	112	0	112		7:50	19:25	11:35	12:30	19:25	6:55
3/14/2018	603479	603529	50	0	50		0:43	12:00	11:17			
3/15/2018	603529	603618	89	0	89		4:40	13:15	8:35	4:40	13:15	8:35
3/16/2018	603618	603684	66	0	66		6:20	12:50	6:30	6:20	12:50	6:30
3/17/2018	603684	603764	80	0	80		6:45	15:00	8:15	6:45	15:00	8:15
3/18/2018	603764	603817	53	0	53		6:40	12:40	6:00	6:40	12:34	5:54
3/19/2018	603817	603878	61	0	61		6:05	12:10	6:05	6:05	12:10	6:05

<i>Date</i>	<i>Start Up Meter Reading</i>	<i>Shut Down Meter Reading</i>	<i>Amount Used</i>	<i>Boiler Usage</i>	<i>Total Usage</i>	<i>Memo</i>	<i>Sys #1 Start Time</i>	<i>Sys #1 Stop Time</i>	<i>Sys #1 Til Run Time</i>	<i>Sys #2 Start Time</i>	<i>Sys #2 Stop Time</i>	<i>Sys #2 Til Run Time</i>
3/20/2018	603878	603942	64	0	64		6:10	13:10	7:00	6:10	13:10	7:00
3/21/2018	603942	604012	70	0	70		5:45	12:45	7:00	5:45	12:45	7:00
3/22/2018	604012	604128	116	0	116		5:25	14:00	8:35	5:25	14:00	8:35
3/23/2018	604128	604315	187	0	187		5:50	13:15	7:25	5:50	13:15	7:25
3/24/2018	604135	604517	382	0	382		6:20	13:20	7:00	6:20	13:20	7:00
3/25/2018	604517	604631	114	0	114		6:30	12:30	6:00	6:30	12:30	6:00
3/26/2018	604631	604753	122	0	122		5:30	12:30	7:00	5:30	12:30	7:00
3/27/2018	604753	604831	78	0	78		6:10	14:15	8:05	6:10	14:15	8:05
3/28/2018	604831	604915	84	0	84		6:30	13:20	6:50	6:30	13:20	6:50
3/29/2018	604915	604979	64	0	64		6:30	12:40	6:10	6:30	12:40	6:10
3/30/2018	604979	605030	51	0	51		6:40	12:20	5:40	6:40	12:20	5:40
3/31/2018	605030	605086	56	0	56		6:50	13:00	6:10	6:50	13:00	6:10

Sys#1 Max Hrs. Total Total Run Time

Sys#2 Max Hrs. x 100 cu.ft.

April 2018

4/1/2018	605086	605122	36	0	36		6:00	10:10	4:10	6:00	10:10	4:10
4/2/2018	605122	605168	46	0	46		6:30	12:00	5:30	6:30	12:00	5:30
4/3/2018	605168	605222	54	0	54		6:35	13:15	6:40	6:35	13:15	6:40
4/4/2018	605222	605284	62	0	62		6:30	13:25	6:55	6:30	13:25	6:55
4/5/2018	605284	605344	60	0	60		6:30	12:40	6:10	6:30	12:40	6:10
4/6/2018	605344	605405	61	0	61		6:35	13:40	7:05	6:35	13:40	7:05
4/7/2018	605405	605492	87	0	87		6:40	12:40	6:00	6:40	12:40	6:00
4/8/2018	605492	605560	68	0	68		5:10	13:10	8:00	5:10	13:10	8:00
4/9/2018	605560	605669	109	0	109		5:20	12:50	7:30	5:20	12:50	7:30
4/10/2018	605669	605851	182	0	182		5:40	14:45	9:05	5:40	14:45	9:05
4/11/2018	605851	605987	136	0	136		6:00	12:00	6:00	6:00	12:00	6:00
4/12/2018	605987	606198	211	0	211		5:40	12:30	6:50	5:40	12:30	6:50
4/13/2018	606198	606308	110	0	110		1:35	10:30	8:55	1:35	10:30	8:55
4/14/2018	0	0	0	645	645	24 hour run through 4/29						
4/30/2018	606953	607291	338	0	338		2:10	16:15	14:05	2:10	16:15	14:05

<i>Date</i>	<i>Start Up Meter Reading</i>	<i>Shut Down Meter Reading</i>	<i>Amount Used</i>	<i>Boiler Usage</i>	<i>Total Usage</i>	<i>Memo</i>	<i>Sys #1 Start Time</i>	<i>Sys #1 Stop Time</i>	<i>Sys #1 Til Run Time</i>	<i>Sys #2 Start Time</i>	<i>Sys #2 Stop Time</i>	<i>Sys #2 Til Run Time</i>
<u>Sys#1 Max Hrs.</u>	14:05	<u>Total</u>	1,560	645	2,205		<u>Total Run Time</u>			102:55		102:55
<u>Sys#2 Max Hrs.</u>	14:05	<u>x 100 cu.ft.</u>										
May 2018												
5/1/2018	607291	607355	64	0	64		10:45	14:35	3:50	10:00	14:35	4:35
5/2/2018	0	0	0	0	0		9:15	14:50	5:35			
5/2/2018	607355	607423	68	0	68		7:30	8:20	0:50	9:15	14:50	5:35
5/3/2018	607423	607497	74	0	74		7:30	14:15	6:45	7:00	14:15	7:15
5/4/2018	607497	607569	72	0	72		6:15	13:15	7:00	6:15	13:15	7:00
5/5/2018	607569	607619	50	0	50		6:00	11:35	5:35	6:00	11:35	5:35
5/6/2018	607619	607704	85	0	85		6:10	13:00	6:50	6:10	13:00	6:50
5/7/2018	607704	607811	107	0	107		6:00	13:40	7:40	6:00	13:40	7:40
5/8/2018	607811	607881	70	0	70		6:10	13:15	7:05	6:10	13:15	7:05
5/9/2018	607881	607947	66	0	66		6:45	7:00	0:15	6:45	23:59	17:14
5/10/2018	607947	607992	45	0	45		7:45	15:00	7:15	0:00	2:45	2:45
5/11/2018	607992	608084	92	0	92		5:40	13:00	7:20	5:45	13:00	7:15
5/12/2018	608084	608162	78	0	78		7:00	15:40	8:40	7:00	15:40	8:40
5/13/2018	608162	608220	58	0	58		6:45	12:30	5:45	6:45	12:30	5:45
5/14/2018	608220	608293	73	0	73		6:15	14:22	8:07	6:15	14:22	8:07
5/15/2018	608293	608372	79	0	79		6:25	14:20	7:55	6:25	14:20	7:55
5/16/2018	608372	608426	54	0	54		6:00	12:00	6:00	6:00	12:00	6:00
5/17/2018	608426	608566	104	0	104		6:15	14:50	8:35	6:15	14:50	8:35
5/18/2018	608566	608635	69	0	69		6:45	12:15	5:30	6:45	12:25	5:40
5/19/2018	608635	608729	94	0	94		7:15	13:00	5:45	7:15	13:00	5:45
5/20/2018	608729	608869	140	0	140		6:30	13:15	6:45	6:30	13:15	6:45
5/21/2018	608869	608935	66	0	66		7:08	13:20	6:12	8:08	13:20	5:12
5/22/2018	608935	609008	73	0	73		6:45	12:30	5:45	6:45	12:30	5:45
5/23/2018	609008	609056	48	0	48		6:00	12:05	6:05			
5/24/2018	609056	609139	83	0	83		6:00	13:15	7:15	6:00	13:15	7:15
5/25/2018	609139	609206	67	0	67		6:55	12:10	5:15	6:55	12:10	5:15
5/26/2018	609206	609272	66	0	66		6:35	12:05	5:30	6:35	12:05	5:30
5/27/2018	609272	609334	62	0	62		6:50	12:15	5:25	6:50	12:15	5:25

<i>Date</i>	<i>Start Up Meter Reading</i>	<i>Shut Down Meter Reading</i>	<i>Amount Used</i>	<i>Boiler Usage</i>	<i>Total Usage</i>	<i>Memo</i>	<i>Sys #1 Start Time</i>	<i>Sys #1 Stop Time</i>	<i>Sys #1 Til Run Time</i>	<i>Sys #2 Start Time</i>	<i>Sys #2 Stop Time</i>	<i>Sys #2 Til Run Time</i>
5/28/2018	609334	609396	62	0	62		6:45	12:20	5:35	6:45	12:20	5:35
5/29/2018	609396	609471	75	0	75		6:20	12:40	6:20	6:20	12:40	6:20
5/30/2018	609471	609560	89	0	89		5:50	12:15	6:25	5:50	12:15	6:25
5/31/2018	609560	609620	60	0	60		6:30	13:30	7:00	6:40	13:30	6:50

Sys#1 Max Hrs. Total Total Run Time

Sys#2 Max Hrs. x 100 cu.ft.

June 2018

6/1/2018	609620	609673	53	0	53		6:58	12:50	5:52	7:00	12:50	5:50
6/2/2018	609673	609725	52	0	52		6:45	12:25	5:40	6:45	12:25	5:40
6/3/2018	609725	609768	43	0	43		6:45	11:35	4:50	6:45	11:35	4:50
6/4/2018	609768	609840	72	0	72		6:40	13:00	6:20	6:40	13:00	6:20
6/5/2018	609840	609892	52	0	52		6:50	12:35	5:45	6:50	12:35	5:45
6/6/2018	909892	909935	43	0	43		6:15	11:30	5:15	6:15	10:30	4:15
6/7/2018	609935	609988	53	0	53		6:00	11:45	5:45	6:00	11:45	5:45
6/8/2018	609988	610070	82	0	82		6:05	12:40	6:35	6:05	12:40	6:35
6/9/2018	610070	610120	50	0	50		6:30	12:15	5:45	6:30	12:15	5:45
6/10/2018	610120	610164	44	0	44		7:15	12:10	4:55	7:15	12:10	4:55
6/11/2018	610164	610215	51	0	51		6:35	11:55	5:20	6:35	11:55	5:20
6/12/2018	610215	610281	66	0	66		6:50	11:30	4:40	6:50	11:30	4:40
6/13/2018	610281	610343	62	0	62		6:15	14:45	8:30	10:00	14:45	4:45
6/14/2018	0	0	0	0	0		13:45	16:35	2:50			
6/14/2018	610343	610416	73	0	73		1:15	5:45	4:30	1:15	5:45	4:30
6/15/2018	610416	610474	58	0	58		6:45	15:40	8:55	11:20	15:40	4:20
6/16/2018	610474	610518	44	0	44		7:15	12:10	4:55	7:15	12:10	4:55
6/17/2018	610518	610576	58	0	58		7:00	13:05	6:05	7:00	13:05	6:05
6/18/2018	610576	610635	59	0	59		6:05	12:40	6:35	6:05	12:40	6:35
6/19/2018	610635	610696	61	0	61		6:35	14:15	7:40	6:35	14:15	7:40
6/20/2018	610696	610744	48	0	48		6:20	11:50	5:30	6:20	11:50	5:30
6/21/2018	610745	610800	55	0	55		6:10	12:18	6:08	6:10	12:18	6:08
6/22/2018	610800	610848	48	0	48		6:35	12:00	5:25	6:35	12:00	5:25
6/23/2018	610848	610914	66	0	66		5:35	10:55	5:20	5:35	10:55	5:20

<i>Date</i>	<i>Start Up Meter Reading</i>	<i>Shut Down Meter Reading</i>	<i>Amount Used</i>	<i>Boiler Usage</i>	<i>Total Usage</i>	<i>Memo</i>	<i>Sys #1 Start Time</i>	<i>Sys #1 Stop Time</i>	<i>Sys #1 Til Run Time</i>	<i>Sys #2 Start Time</i>	<i>Sys #2 Stop Time</i>	<i>Sys #2 Til Run Time</i>
6/24/2018	610914	610989	75	0	75		7:00	14:23	7:23	7:00	14:23	7:23
6/25/2018	610989	611031	42	0	42		6:30	11:30	5:00	6:30	10:00	3:30
6/26/2018	611031	611100	69	0	69		6:15	11:45	5:30	6:15	11:45	5:30
6/27/2018	611100	611170	70	0	70		6:00	11:40	5:40	6:00	11:40	5:40
6/28/2018	611170	611247	77	0	77		6:30	14:50	8:20	6:30	14:50	8:20
6/29/2018	611247	611300	53	0	53		6:15	11:50	5:35	6:15	11:50	5:35
6/30/2018	611300	611359	59	0	59		6:25	13:05	6:40	6:25	13:05	6:40

Sys#1 Max Hrs. Total Total Run Time

Sys#2 Max Hrs. x 100 cu.ft.

July 2018

7/1/2018	611359	611420	61	0	61		6:05	12:55	6:50	6:05	12:55	6:50
7/2/2018	611420	611496	76	0	76		6:10	13:45	7:35	6:10	13:45	7:35
7/3/2018	611496	611561	65	0	65		6:30	13:30	7:00	6:30	13:30	7:00
7/4/2018	611561	611616	55	0	55		6:15	12:00	5:45	6:15	12:00	5:45
7/5/2018	611616	611689	73	0	73		6:10	12:25	6:15	6:10	12:25	6:15
7/6/2018	611689	611758	69	0	69		5:45	11:30	5:45	5:45	11:30	5:45
7/7/2018	611758	611813	55	0	55		6:30	12:15	5:45	6:30	12:15	5:45
7/8/2018	611813	611862	49	0	49		6:55	12:20	5:25	6:55	12:20	5:25
7/9/2018	611862	611918	56	0	56		6:30	12:30	6:00	6:30	12:30	6:00
7/10/2018	611918	611981	63	0	63		12:00	16:10	4:10	5:10	16:18	11:08
7/11/2018	611981	612038	57	0	57		0:05	15:00	14:55			
7/12/2018	612038	612098	60	0	60		1:20	9:00	7:40	2:55	5:45	2:50
7/13/2018	612098	612141	43	0	43		6:30	11:20	4:50	6:30	11:20	4:50
7/14/2018	612141	612194	53	0	53		5:40	11:30	5:50	5:40	11:30	5:50
7/15/2018	612194	612268	74	0	74		6:05	12:50	6:45	6:05	12:50	6:45
7/16/2018	612268	612330	62	0	62		6:25	12:50	6:25	6:25	12:50	6:25
7/17/2018	612330	612388	58	0	58		6:40	12:30	5:50	6:40	12:30	5:50
7/18/2018	612388	612435	47	0	47		6:15	11:10	4:55	6:15	11:10	4:55
7/19/2018	612435	612506	71	0	71		6:35	12:52	6:17	6:36	12:52	6:16
7/20/2018	612506	612587	81	0	81		6:25	13:25	7:00	6:25	13:25	7:00
7/21/2018	612587	612623	36	0	36		6:15	10:00	3:45	6:15	10:00	3:45

<i>Date</i>	<i>Start Up Meter Reading</i>	<i>Shut Down Meter Reading</i>	<i>Amount Used</i>	<i>Boiler Usage</i>	<i>Total Usage</i>	<i>Memo</i>	<i>Sys #1 Start Time</i>	<i>Sys #1 Stop Time</i>	<i>Sys #1 Til Run Time</i>	<i>Sys #2 Start Time</i>	<i>Sys #2 Stop Time</i>	<i>Sys #2 Til Run Time</i>
7/22/2018	612623	612672	49	0	49		7:10	12:25	5:15	7:10	12:25	5:15
7/23/2018	0	0	0	0	0		12:20	16:30	4:10	12:20	16:30	4:10
7/23/2018	612672	612735	63	0	63		6:00	8:00	2:00	6:00	8:10	2:10
7/24/2018	612735	612825	90	0	90		6:15	13:08	6:53	6:15	13:08	6:53
7/25/2018	612825	612880	55	0	55		6:05	12:25	6:20	6:05	12:25	6:20
7/26/2018	612880	612949	69	0	69		6:15	13:15	7:00	6:15	13:15	7:00
7/27/2018	612949	613025	76	0	76		6:10	12:30	6:20	6:10	12:30	6:20
7/28/2018	613025	613067	42	0	42		6:30	11:05	4:35	6:30	11:05	4:35
7/29/2018	613067	613110	43	0	43		7:00	11:30	4:30	7:00	11:30	4:30
7/30/2018	613110	613161	51	0	51		6:15	12:00	5:45	6:15	12:00	5:45
7/31/2018	613161	613214	53	0	53		6:00	11:25	5:25	6:00	11:25	5:25

<u>Sys#1 Max Hrs.</u>	14:55	<u>Total</u>	1,855	0	1,855	<u>Total Run Time</u>	192:55	180:17
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Sys#2 Max Hrs. 11:08 x 100 cu.ft.

August 2018

8/1/2018	613214	613268	54	0	54		6:10	12:10	6:00	6:10	12:10	6:00
8/2/2018	613268	613332	64	0	64		6:20	13:05	6:45	6:20	13:05	6:45
8/3/2018	613332	613386	54	0	54		6:35	12:15	5:40	6:35	12:15	5:40
8/4/2018	613386	613467	81	0	81		6:30	14:15	7:45	6:30	14:15	7:45
8/5/2018	613467	613515	48	0	48		7:00	12:30	5:30	7:00	12:30	5:30
8/6/2018	613515	613568	53	0	53		6:18	12:15	5:57			
8/7/2018	0	0	0	0	0					12:15	15:15	3:00
8/7/2018	613568	613639	71	0	71		6:25	15:15	8:50	6:25	9:00	2:35
8/8/2018	613639	613706	67	0	67		6:10	12:25	6:15	6:10	12:25	6:15
8/9/2018	613706	613772	66	0	66		6:40	12:45	6:05	6:40	12:45	6:05
8/10/2018	613772	613823	51	0	51		6:30	11:50	5:20	6:30	11:50	5:20
8/11/2018	613823	613880	57	0	57		6:40	13:20	6:40	6:40	13:20	6:40
8/12/2018	613880	613923	43	0	43		6:30	11:10	4:40	6:30	11:10	4:40
8/13/2018	613923	613991	68	0	68		5:45	13:30	7:45	5:45	13:30	7:45
8/14/2018	613991	614081	90	0	90		6:50	14:50	8:00	6:50	14:50	8:00
8/15/2018	614081	614135	54	0	54		11:00	14:50	3:50	6:15	14:50	8:35
8/16/2018	614135	614209	74	0	74		6:00	11:20	5:20	6:00	11:20	5:20

<i>Date</i>	<i>Start Up Meter Reading</i>	<i>Shut Down Meter Reading</i>	<i>Amount Used</i>	<i>Boiler Usage</i>	<i>Total Usage</i>	<i>Memo</i>	<i>Sys #1 Start Time</i>	<i>Sys #1 Stop Time</i>	<i>Sys #1 Til Run Time</i>	<i>Sys #2 Start Time</i>	<i>Sys #2 Stop Time</i>	<i>Sys #2 Til Run Time</i>
8/17/2018	614209	614277	68	0	68		5:50	13:40	7:50	5:50	13:40	7:50
8/18/2018	614277	614341	64	0	64		6:40	13:40	7:00	6:40	13:40	7:00
8/19/2018	614341	614405	64	0	64		6:45	13:18	6:33	6:45	13:18	6:33
8/20/2018	614405	614496	91	0	91		6:15	12:40	6:25	6:15	12:40	6:25
8/21/2018	614496	614564	68	0	68		6:05	13:55	7:50	6:00	13:55	7:55
8/22/2018	614564	614621	57	0	57		6:20	12:48	6:28	6:20	12:48	6:28
8/23/2018	614621	614699	78	0	78		6:15	15:10	8:55	6:15	15:10	8:55
8/24/2018	614699	614760	61	0	61		5:15	12:03	6:48	5:15	12:03	6:48
8/25/2018	614760	614864	104	0	104		5:45	14:00	8:15	5:45	14:00	8:15
8/26/2018	614864	614923	59	0	59		6:00	12:50	6:50	6:00	12:50	6:50
8/27/2018	614923	614998	75	0	75		6:00	14:30	8:30	6:00	14:30	8:30
8/28/2018	614998	615090	92	0	92		6:00	14:38	8:38	6:00	14:38	8:38
8/29/2018	615090	615158	68	0	68		6:20	14:25	8:05	6:20	14:25	8:05
8/30/2018	615158	615218	60	0	60		6:10	13:35	7:25	6:10	13:35	7:25
8/31/2018	615219	615282	63	0	63		6:00	12:40	6:40	6:00	12:40	6:40

Sys#1 Max Hrs. Total

Total Run Time

Sys#2 Max Hrs. x 100 cu.ft.

September 2018

9/1/2018	615282	615346	64	0	64		5:00	12:35	7:35	5:00	12:35	7:35
9/2/2018	615346	615425	79	0	79		6:25	15:30	9:05	6:25	15:30	9:05
9/3/2018	615425	615484	59	0	59		6:30	12:55	6:25	6:30	12:55	6:25
9/4/2018	615484	615567	83	0	83		6:00	13:15	7:15	6:00	13:15	7:15
9/5/2018	615567	615630	63	0	63		5:25	15:00	9:35	5:25	15:00	9:35
9/6/2018	615630	615703	73	0	73		0:11	14:00	13:49	0:05	14:00	13:55
9/7/2018	615703	615776	73	0	73		6:35	14:25	7:50	6:35	14:45	8:10
9/8/2018	615776	615846	70	0	70		5:55	13:30	7:35	5:55	13:30	7:35
9/9/2018	615846	615910	64	0	64		5:30	12:30	7:00	5:30	12:30	7:00
9/10/2018	615910	615985	75	0	75		5:10	13:40	8:30	5:10	13:40	8:30
9/11/2018	615985	616065	80	0	80		5:50	6:25	0:35	14:10	18:25	4:15
9/12/2018	616065	616132	67	0	67		6:05	13:40	7:35	6:05	13:40	7:35
9/13/2018	616132	616216	84	0	84		6:18	13:50	7:32	6:18	13:50	7:32

<i>Date</i>	<i>Start Up Meter Reading</i>	<i>Shut Down Meter Reading</i>	<i>Amount Used</i>	<i>Boiler Usage</i>	<i>Total Usage</i>	<i>Memo</i>	<i>Sys #1 Start Time</i>	<i>Sys #1 Stop Time</i>	<i>Sys #1 Til Run Time</i>	<i>Sys #2 Start Time</i>	<i>Sys #2 Stop Time</i>	<i>Sys #2 Til Run Time</i>
9/14/2018	616216	616307	91	0	91		10:20	12:43	2:23	0:01	12:43	12:42
9/15/2018	616307	616379	72	0	72		5:45	14:20	8:35	5:45	14:20	8:35
9/16/2018	916379	916479	100	0	100		7:00	13:45	6:45	7:00	13:45	6:45

<u>Sys#1 Max Hrs.</u>	13:49	<u>Total</u>	1,197	0	1,197	<u>Total Run Time</u>	118:4	132:29
<u>Sys#2 Max Hrs.</u>	13:55	<u>x 100 cu.ft.</u>						

November 2018

11/1/2018				161								
11/3/2018	0	0	0	99	99							
11/4/2018	0	0	0	31	31							
11/5/2018	0	0	0	117	117							
11/6/2018	916887	917053	166	0	166		6:15	15:30	9:15	7:55	15:30	7:35
11/7/2018	917053	917166	113	0	113		5:50	12:00	6:10	5:50	12:00	6:10
11/8/2018	917166	917308	142	0	142		5:45	14:35	8:50	5:45	14:35	8:50
11/9/2018	917308	917411	103	0	103		5:45	12:10	6:25	5:45	12:10	6:25
11/10/2018	917411	917621	210	0	210		5:50	14:30	8:40	5:50	14:30	8:40
11/11/2018	917621	917816	195	0	195		5:45	15:35	9:50	5:45	15:55	10:10
11/12/2018	917816	918001	185	0	185		5:50	15:10	9:20	5:50	15:20	9:30
11/13/2018	0	0	0	0	0		20:35	9:35	11:00	20:40	6:30	14:10
11/13/2018	918001	918233	232	0	232		5:45	13:00	7:15	5:45	13:00	7:15
11/14/2018	918233	918303	70	0	70		12:05	15:55	3:50	12:05	15:55	3:50
11/15/2018	918303	918452	149	0	149		4:45	16:00	11:15	7:00	16:00	9:00
11/16/2018	918452	918586	134	0	134		5:15	14:35	9:20	5:15	14:10	8:55
11/17/2018	918586	918773	187	0	187		5:20	16:00	10:40	9:30	16:00	6:30
11/18/2018	918773	918960	187	0	187		5:05	13:35	8:30	5:05	12:45	7:40
11/19/2018	918960	919159	199	0	199		5:30	14:10	8:40	5:30	14:10	8:40
11/20/2018	919159	919296	137	0	137		5:35	16:22	10:47	5:35	16:22	10:47
11/21/2018	919296	919400	104	0	104		5:45	13:25	7:40	5:45	13:25	7:40
11/22/2018	919400	919508	108	0	108		5:50	13:25	7:35	5:50	13:00	7:10
11/23/2018	919508	919660	152	0	152		5:35	15:20	9:45	5:40	15:20	9:40
11/24/2018	919660	919743	83	0	83		6:00	12:00	6:00	6:00	11:00	5:00
11/25/2018	919743	919877	134	0	134		5:25	14:20	8:55	5:25	14:20	8:55

<i>Date</i>	<i>Start Up Meter Reading</i>	<i>Shut Down Meter Reading</i>	<i>Amount Used</i>	<i>Boiler Usage</i>	<i>Total Usage</i>	<i>Memo</i>	<i>Sys #1 Start Time</i>	<i>Sys #1 Stop Time</i>	<i>Sys #1 Til Run Time</i>	<i>Sys #2 Start Time</i>	<i>Sys #2 Stop Time</i>	<i>Sys #2 Til Run Time</i>
11/26/2018	919877	919964	87	0	87		5:30	12:20	6:50	5:30	11:15	5:45
11/27/2018	919964	920104	140	0	140		5:30	15:00	9:30	5:30	15:00	9:30
11/28/2018	920104	920235	131	0	131		5:30	14:15	8:45	5:30	14:15	8:45
11/29/2018	920235	920354	119	0	119		6:05	13:55	7:50	6:05	13:55	7:50
11/30/2018	920354	920464	110	0	110		6:25	14:10	7:45	6:25	14:10	7:45

<u>Sys#1 Max Hrs.</u>	11:15	<u>Total</u>	3,577	408	3,985	<u>Total Run Time</u>	198:22	183:47
<u>Sys#2 Max Hrs.</u>	10:47	<u>x 100 cu.ft.</u>						

December 2018

12/1/2018	920464	920557	93	0	93		6:55	13:25	6:30	7:00	13:28	6:28
12/2/2018	920557	920659	102	0	102		7:20	14:30	7:10	7:25	14:30	7:05
12/3/2018	920659	920744	85	0	85		6:50	12:50	6:00	6:50	12:50	6:00
12/4/2018	920744	920846	102	0	102		6:15	13:10	6:55	6:15	13:10	6:55
12/5/2018	920846	920961	115	0	115		6:00	13:50	7:50	6:00	13:50	7:50
12/6/2018	0	0	0	0	0		12:30	17:30	5:00	12:30	17:30	5:00
12/6/2018	920961	921085	124	0	124		6:15	10:35	4:20	7:00	10:35	3:35
12/7/2018	921085	921181	96	0	96		6:20	13:00	6:40	6:20	13:00	6:40
12/8/2018	921181	921295	114	0	114		6:40	14:25	7:45	6:43	14:25	7:42
12/9/2018	921295	921405	110	0	110		6:35	14:10	7:35	6:35	14:10	7:35
12/10/2018	921405	921534	129	0	129		5:40	15:10	9:30	5:40	15:10	9:30
12/11/2018	921534	921640	106	0	106		6:15	13:30	7:15	6:15	13:30	7:15
12/12/2018	921640	921725	85	0	85		5:40	14:30	8:50	9:55	14:30	4:35
12/13/2018	921725	921825	100	0	100		5:50	14:00	8:10	5:50	14:00	8:10
12/14/2018	921825	921923	98	0	98		6:00	13:10	7:10	6:00	13:10	7:10
12/15/2018	921923	922046	123	0	123		5:15	14:30	9:15	5:15	14:30	9:15
12/16/2018	922046	922147	101	0	101		6:05	13:40	7:35	6:05	13:40	7:35
12/17/2018	922147	922242	95	0	95		6:50	13:00	6:10	6:50	13:00	6:10
12/18/2018	922242	922336	94	0	94		6:30	13:40	7:10	6:30	13:40	7:10
12/19/2018	922336	922429	93	0	93		7:15	13:05	5:50	7:15	13:05	5:50
12/20/2018	922429	922523	94	0	94		10:25	15:00	4:35	7:25	15:00	7:35
12/21/2018	922523	922593	70	0	70		7:25	11:45	4:20	7:25	11:45	4:20
12/22/2018	922593	922680	87	0	87		7:30	13:30	6:00	7:30	13:30	6:00

<i>Date</i>	<i>Start Up Meter Reading</i>	<i>Shut Down Meter Reading</i>	<i>Amount Used</i>	<i>Boiler Usage</i>	<i>Total Usage</i>	<i>Memo</i>	<i>Sys #1 Start Time</i>	<i>Sys #1 Stop Time</i>	<i>Sys #1 Til Run Time</i>	<i>Sys #2 Start Time</i>	<i>Sys #2 Stop Time</i>	<i>Sys #2 Til Run Time</i>	
12/23/2018	922680	922770	90	0	90		7:30	13:45	6:15	7:30	13:45	6:15	
12/24/2018	922770	922836	66	0	66		6:30	11:00	4:30	6:30	11:00	4:30	
12/25/2018	922836	922892	56	0	56		6:15	11:00	4:45	6:15	9:30	3:15	
12/26/2018	922892	922987	95	0	95		6:15	12:00	5:45	6:20	13:00	6:40	
12/27/2018	922987	923043	56	0	56		7:45	11:20	3:35	7:45	11:20	3:35	
12/28/2018	923043	923110	67	0	67		7:15	11:40	4:25	7:15	11:40	4:25	
12/29/2018	923110	923222	112	0	112		6:05	11:35	5:30	6:05	11:35	5:30	
12/30/2018	923222	923329	107	0	107		6:45	11:05	4:20	6:45	11:05	4:20	
12/31/2018	923329	923457	128	0	128		7:00	12:10	5:10	7:00	12:10	5:10	
<u>Sys#1 Max Hrs.</u>			<input type="text" value="9:30"/>	<u>Total</u>		<input type="text" value="2,993"/>	<input type="text" value="0"/>	<input type="text" value="2,993"/>	<u>Total Run Time</u>			<input type="text" value="201:50"/>	<input type="text" value="199:5"/>
<u>Sys#2 Max Hrs.</u>			<input type="text" value="9:30"/>	<u>x 100 cu.ft.</u>									
<u>Grand Total</u>				<input type="text" value="32,029"/>	<input type="text" value="4810"/>	<input type="text" value="36,839"/>	<u>Grand Total Run Time</u>			<input type="text" value="2036:15"/>	<input type="text" value="2010:52"/>		

APPENDIX C

CAM PLAN

COMPLIANCE ASSURANCE MONITORING PLAN
ACFB

I. Background

A. Emissions Unit

Description: One (1) ABB-CE Atmospheric Fluidized Bed
Combustion Boiler
Identification: Emission Point 1
MARMA Reg. No.: 3-0127

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.: PSD Approval No. 94-01, Part A, Condition 7
Emission Limits: Particulate Matter: 0.015 pounds/MMBtu
(3-hour average)
Monitoring Requirements: Opacity

C. Control Technology

Reverse air baghouse manufactured by ABB operated under negative pressure.

II. Monitoring Approach

The key elements of the monitoring approach are presented in Tables 1 and 2.

Table 1. Monitoring Approach – Indicator 1 (Primary)

<p>I. Indicator Monitoring Approach</p>	<p>Opacity Opacity is measured continuously with a COMS unit</p>
<p>II. Indicator Range</p>	<p>An internal, non-enforceable trigger level of 10.9% average opacity (three-hour block average).</p>
<p>III. Performance Criteria</p> <p>A. Data Representativeness</p> <p>B. Verification of Operational Status</p> <p>C. QA/QC Practices and Criteria</p> <p>D. Monitoring Frequency and Data Collection Procedure</p>	<p>The monitoring system consists of a COMS which monitors the opacity of the exhaust gas stream.</p> <p>Continuous opacity data will be collected in accordance with COMAR 26.11.01.10, COMAR 26.11.01.11 and COMAR 26.11.31.</p> <p>The COMS will be certified in accordance with 40 CFR Part 60, Appendix B. COMS will be calibrated, maintained, and operated according to manufacturer’s recommendations. COM data will be collected and validated in accordance with COMAR 26.11.01.10, COMAR 26.11.01.11 and COMAR 26.11.31.</p> <p>Opacity data are automatically reduced to 6-minute block averages calculated from 36 or more equally spaced data points.</p>

CAM PLAN JUSTIFICATION

I. Background

The ACFB, which is identified as the pollutant-specific emission unit, burns bituminous coal and utilizes Number 2 fuel oil as a start-up fuel for the generation of steam and electricity. Particulate emissions are controlled by an ABB reverse air baghouse. The baghouse consists of twelve (12) compartments. Opacity is measured using a continuous opacity monitoring system (COMS).

II. Rationale for Selection of Performance Indicator

Opacity was selected as the performance indicator because it is indicative of good operation and maintenance of the baghouse. The facility is required to utilize a COMS to satisfy the monitoring requirements of 40 CFR Part 60, Subpart Da. An increase in opacity indicates reduced performance of a particulate control device. Therefore, an increase in opacity is used as a performance indicator.

III. Rationale for Selection of Indicator Level

The equation giving a correlation between opacity and particulate mass emissions developed by Robertson et. al., and reported in the Proceedings of the EPRI May 1999 CEM Users Group Meeting, is used to develop a primary opacity indicator range to allow reasonable assurance of compliance. The Robertson et. al. relationship is:

$$\text{PM (mg/dscm)} = 0.462 \times \text{Opacity}(\%)^2 - 4.60 \times \text{Opacity}(\%) + 13.5$$

AES Warrior Run has a few sets of simultaneous measurements of opacity and particulate matter mass emissions from the main boiler stack. The following table summarizes these measurements.

Date	Stack Test PM (mg/dscm)	COMS Opacity (%)
02/24/2005	4.58	3.3
07/21/2010	5.54	2.9
05/22/2012	6.87	2.3
03/07/2013	2.29	3.1

The stack test PM concentrations were measured using U.S. EPA Method 5, and are the average of three runs during each of the four stack tests. The corresponding COMS opacity is the average opacity that was measured by the existing COMS during the PM stack test. The measured opacities during these stack tests are very steady and low; the average opacity for the stack tests is 2.9 %. The corresponding PM concentration measurements are more variable, which would be an expected result from Method 5 analyses; the average PM concentration for the stack tests is 4.82 mg/dscm. This level of PM concentration at low opacity is consistent with

the Robertson et. al. relationship. Therefore, the Robertson et. al. relationship is used to develop an opacity trigger level for the CAM indicator range.

The PM₁₀ emission standard for AES Warrior Run's ACFB is 0.015 lb/MMBtu (3 hour average). Based on the carbon dioxide F-Factor for bituminous coal combustion of 1800 scf/MMBtu (U.S. EPA Method 19), and a carbon dioxide concentration in the ACFB exhaust of 15%, dry, the emission standard for AES Warrior Run is equivalent to 20 mg/dscm, or

$$0.015 \text{ lb/MMBtu} \times 1 \text{ MMBtu}/1800 \text{ dscf} \times 0.15 \times 453590 \text{ mg/lb} \times 1 \text{ cf}/0.02832 \text{ cm}$$

For conservatism, AES Warrior Run is using 90% of the emission standard (or 18 mg/dscm) as the basis for an opacity trigger level. Generally solving the Robertson et. al. equation for opacity results in:

$$\text{Opacity (\%)} = [4.6 + \text{SQRT}\{(4.6)^2 - (4)(0.462)(13.5-PM)\}]/[(2)(0.462)]$$

Therefore, the opacity level corresponding to 90% of the PM₁₀ emission standard (PM = 18 mg/dscm) is 10.9% opacity. This is the proposed primary opacity indicator.

When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported. This indicator range was selected because an increase in opacity is indicative of an increase in particulate emissions.

For the secondary indicator, the indicator of a clear step change of more than 5% in opacity during the isolation of any baghouse module during the normal cleaning sequence is a reasonable indicator of anomalous opacity reading and therefore an indicator of potential abnormal performance. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported. This indicator range was selected because an increase in opacity is indicative of an increase in particulate emissions.

APPENDIX D
2018 A-COMP REPORT



AES Warrior Run

the power of being global

11600 Mexico Farms Road, SE • Cumberland, MD 21502 • (301) 777-0055 • FAX (301) 777-8772

Maryland Department of the Environment
Air and Radiation Management Administration
1800 Washington Boulevard, Suite 715
Baltimore, Maryland 21230-1720
Attention: Laramie Daniel, Compliance Program

March 29, 2019

**Subject: AES Warrior Run, Annual Compliance Certification Report
Permit Number 24-001-00203**

Dear Laramie Daniel:

As required, AES Warrior Run is submitting the 2018 Annual Compliance Certification Report. In addition to the federal form (A-Comp), AES Warrior Run is submitting the required ARMA form for Section III. A copy of each form has been sent to the Maryland Department of the Environment (MDE) Air and Radiation Management Administration (ARMA) and to the Environmental Protection Agency (EPA).

AES Warrior Run takes a serious approach to continuous compliance. If you have any questions or concerns with this matter, please contact Kara Hawkins at (301)-777-0055 x 1105 or by email at kara.hawkins@aes.com.

Sincerely,




Peter Bajc
Plant Manager
AES Warrior Run


AES Warrior Run
Annual Part 70 Compliance Certification: January – December 2018

CERTIFICATION BY RESPONSIBLE OFFICIAL

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations (COMAR 26.11.02.02F).



Name



Date



Title

Federal Operating Permit Program (40 CFR Part 71)

ANNUAL COMPLIANCE CERTIFICATION REPORT (A-COMP)

A. GENERAL INFORMATION

Permit No. 24-001-00203

Reporting Period: Beg. 1/1/2018 End. 12/31/2018

Source / Company Name AES Warrior Run, LLC

Mailing Address: Street or P.O. Box 11600 Mexico Farms Rd., S.E.

City Cumberland State MD ZIP 21502 -

Contact Person Kara Hawkins Title Environmental Specialist

Telephone (301) 777 - 0055 Ext. 1105

Continued on next page

CERTIFICATION OF PLANT-WIDE CONDITIONS (SECTION III OF PART 70 OPERATING PERMIT)

Indicate compliance with the following requirements of Section III of your Part 70 Operating Permit in the space provided below:

1. Particulate Matter from Construction and Demolition

Where necessary, reasonable precautions were taken to prevent particulate matter from becoming airborne.

2. Open Burning

No open burning occurred from June 1 through August 31.

3. Air Pollution Episode (N/A)

N/A

4. Report of Excess Emissions and Deviations

(All deviations from permit requirements should be clearly identified in quarterly monitoring reports.)

Deviations from permit conditions and occurrences of excess emissions were reported as required.

5. Accidental Release Provisions (if applicable)

A Risk Management Plan has been submitted as required.

6. General Testing Requirements

The Department did not require testing to be conducted.

7. Emissions Test Methods

All testing was performed using reference test methods.

8. Emissions Certification Report

An emissions certification report was submitted as required.

9. Compliance Certification Report

A compliance certification report was submitted as required.

10. Certification by Responsible Official

All application forms, reports and compliance certifications were certified as required.

11. Sampling and Emissions Testing Record Keeping

Records specified by Term III.11 have been retained as required.

12. General Record Keeping

Records specified by Term III.12 have been retained as required.

13. General Conformity (N/A except for federal facilities)

N/A

14. Asbestos Provisions (if applicable)

N/A

15. Ozone Depleting Regulations (if applicable)

N/A

16. Acid Rain Permit (if applicable)

N/A

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- COMAR 26.11.09.05A (1), In Areas I, II, V, and VI, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is greater than 20 percent opacity.
- Exceptions: COMAR 26.11.09.05A(1) does not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
 - (i) The visible emissions are not greater than 40 percent opacity; and
 - (ii) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period. [Authority: COMAR 26.11.09.05A(3)].
- 40 CFR 60.42Da(b) – NSPS Subpart Da, which limits the discharge into the atmosphere of any gases which exhibit greater than 20 percent opacity (6-minute average) except for 6-minute period per hour of not more than 27% opacity. The limit under §60.42a applies at all times except during periods of startup, shutdown, or malfunction. [Authority: 40 CFR 60.48Da(c)].

Note: Compliance with COMAR 26.11.09.05A (1) - visible emissions limit will be the basis for demonstrating compliance with the applicable NSPS regulation.
[Term IV.1.1A]

Compliance Methods for the Above (Description and citation):

Continuous monitoring and continuous records of stack gas opacity, in accordance with Terms IV.1.3A and IV.1.4A. Records of quarterly reports to the MDE that include stack gas opacity monitoring results, in accordance with Term IV.1.5A.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 40 CFR 60.42Da(a)(a) – NSPS Subpart Da, which limits particulate matter emissions to 0.03 lbs/MMBtu heat input. The limit under §60.42Da applies at all times except during periods of startup, shutdown, or malfunction. [Authority: 40 CFR 60.48Da(a)].
 - PSD Approval No. 94-01A, which limit PM10 emissions to 0.015 lbs/MMBtu heat input - 3 hour average and 136 tons per year based on a maximum heat input of 17,934,480 MMBtu/hr averaged on a rolling 12 month period. (See PSD limits in Table 1 of the PSD Approval in Paragraph E).
- Note: The same monitoring, record keeping and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.42Da(a) and the PSD limit.
[Term IV.1.1B]

Compliance Methods for the Above (Description and citation):

Particulate matter emissions testing in February 2011, under previous Permit, in accordance with Term IV.1.2B. Record of particulate matter test, in accordance with Term IV.1.4B. Record of particulate matter test report to the MDE, in accordance with Term IV.1.5B.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• 40 CFR 60.43Da(a)(1) - (4) – NSPS Subpart Da, which prohibit the discharge of any gases into the atmosphere which contain sulfur dioxide from the combustion of solid fuel in excess of: (1) 1.2 lbs/MMBtu heat input per hour and 10 percent of the potential combustion concentration (90 percent reduction); (2) 30 percent of the potential combustion concentration (70 percent reduction), when emissions are less than 0.60 lbs/MMBtu of heat input; (3) 1.4 lb/MWh gross energy output; or (4) 0.15 lb/MMBtu heat input.

Note: Compliance with the emissions limitation and percent reduction requirements are determined on a 30-day rolling average [Authority: 40 CFR 60.43Da(g)].

• PSD Approval No. 94-01A, which limit sulfur dioxide emissions to 0.21 lbs/MM Btu per 3-hr block average; 0.19 lbs/MM Btu per 24-hr block average and 0.16 lbs/MM Btu per annual average – 1403 tons per year. In addition, the boiler shall be designed to achieve a control efficiency for sulfur dioxide of no less than 95 percent (based on a 30 day block average) based on the design coal specified in the PSD application.

Note: The same monitoring, record keeping and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.43Da and the PSD limit.

• COMAR 26.11.09.07(A)(1)(a) which limits the oxides of sulfur to 3.5 pounds per million BTU and COMAR 26.11.09.07(A)(1)(a) which limits sulfur in distillate fuel oil in excess of 0.3 percent. (Streamlined with PSD limit. Compliance with the PSD BACT limit assures compliance with this RACT limits.)

[Term IV.1.1C]

Compliance Methods for the Above (Description and citation):

Continuous monitoring and continuous records of sulfur dioxide emissions, in accordance with Terms IV.1.3C and IV.1.4C. Records of quarterly reports to the MDE that include sulfur dioxide emissions monitoring results, in accordance with Term IV.1.5C.

Status (check one): Intermittent compliance X Continuous compliance With the exception of reported deviation,

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• CSAPR - TR SO2 Group 1 Trading Program 40 CFR Part 97 Subpart CCCCC. The Permittee shall comply with the provisions and requirements of §97.601 through §97.635.

[Term IV.1.1C]

Compliance Methods for the Above (Description and citation):

Monitoring, recording and reporting performed

Status (check one): Intermittent compliance X Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 40 CFR 60.44Da(a)(1), NSPS Subpart Da which prohibits the discharge of any gases into the atmosphere which contain nitrogen oxides, from the combustion of bituminous coal in excess of 0.6 lbs/MMBtu of heat input based on a 30-day rolling average.
Note: The limit under §60.44Da applies at all times except during periods of startup, shutdown, or malfunction. [Authority: 40 CFR 60.48Da(a)].
- PSD Approval No. 94-01A, which limit nitrogen oxide emissions to 0.10 lbs/MMBtu on a 24-hr block average and 907 tons per year. The PSD approval includes the operation of an SNCR system to achieve these NOx emissions limits.
- COMAR 26.11.09.08B(1)(c) – Emissions Standard for coal (dry Bottom): 0.38 lbs/MMBtu of heat input based on a 30-day rolling average.
Note: The same monitoring, record keeping and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.44Da(a), the PSD limit, and the NOx RACT limit.
[Term IV.1.1D]

Compliance Methods for the Above (Description and citation):

Continuous monitoring and continuous records of nitrogen oxides emissions, in accordance with Terms IV.1.3D and IV.1.4D.
Records of quarterly reports to the MDE that include nitrogen oxide emissions monitoring results, in accordance with Term IV.1.5D.

Status (check one): Intermittent compliance X Continuous compliance With the exception of reported deviation,

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- CSAPR - TR NOx Annual Trading Program 40 CFR Part 97 Subpart AAAAA The Permittee shall comply with the provisions and requirements of §97.401 through §97.435
- CSAPR - TR NOx Ozone Season Trading Program 40 CFR Part 97 Subpart BBBBB The Permittee shall comply with the provisions and requirements of §97.501 through §97.535.
[Term IV.1.1D]

Compliance Methods for the Above (Description and citation):

Monitoring, recording and reporting performed

Status (check one): Intermittent compliance X Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- PSD Approval # 94-01A. The Permittee shall comply with emission limits (lbs/MMbtu and tons/year) for CO, hydrocarbons, sulfuric acid mist, fluorides, beryllium, lead, mercury and ammonia as specified in PSD Approval #94-01A.
- PSD Approval # 94-01A . The Permittee shall limit the heat input to the ACFB boiler to 17,934,480 MMBtu. on a rolling 12 month basis.

[Term IV.1.1E]

Compliance Methods for the Above (Description and citation):

Records of the heat input of the boiler in accordance with Term IV.1.4E(1). Records of quarterly reports to the MDE that include the heat input of the boiler, in accordance with Term IV.1.5E(1). Stack testing records. Continuous monitoring and continuous records of CO₂ emissions, in accordance with Terms IV.1.3E(2) and IV.1.4E(3). Records of quarterly reports to the MDE that include CO₂ emission monitoring results, in accordance with Term IV.1.5E(2).

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall perform QA/QC procedures on the Continuous Opacity Monitoring (COM) system as required by permit to construct (PTC) 001-3-0127, 0136 & 0067 issued on August 10, 1994 and amended on November 17, 2005 and NSPS 40 CFR Part 60 Subpart Da. The Permittee shall provide the Department a notice of intent to audit the CEM system at least 30 day prior to the proposed test date. [Authority: 40 CFR Part 60, subpart Da and PTC No. 001-3-0127 issued on August 10, 1994 and amended on November 17, 2005].

[Term IV.1.2A]

Compliance Methods for the Above (Description and citation):

Records of daily and quarterly COM system Q/A activities, in accordance with Term IV.1.4A. Records of quarterly reports to the MDE that include COM system Q/A activities, in accordance with Term IV.1.5A.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall perform a total particulate and PM₁₀ emissions test once during the life of the permit. A test protocol shall be submitted to the Department for review and approval at least 30 days before any testing is conducted. Furthermore, all testing shall be conducted at reasonable time and with 10 days notice to the Department to allow representation by Department's personnel. [Authority: COMAR 26.11.03.06C]. [Term IV.1.2B]

Compliance Methods for the Above (Description and citation):

Record of particulate matter stack testing in February 2011, under previous Permit, in accordance with Term IV.1.4B. Record of particulate matter stack test report to the MDE, in accordance with Term IV.1.5B.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall conduct performance certification testing as required by 40 CFR Part 60, Appendix F on the sulfur dioxide continuous emissions monitoring (CEM) system. The Permittee shall provide the Department a notice of intent to audit the CEM system at least 30 day prior to the proposed test date. [Authority: 40 CFR Part 60, subpart Da and PTC No. 001-3-0127 issued on August 10, 1994 and amended on November 17, 2005]. [Term IV.1.2C]

Compliance Methods for the Above (Description and citation):

Records of daily, quarterly and annual sulfur dioxide CEMS Q/A activities, in accordance with Term IV.1.4C. Records of quarterly reports to the MDE that include sulfur dioxide CEMS Q/A activities, in accordance with Term IV.1.5C.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- Conduct performance certification testing as required by 40 CFR Part 75, Subpart H on the NOx continuous emissions monitoring system. The Permittee shall provide the Department a notice of intent to audit the CEM system at least 30 day prior to the proposed test date. [Authority: COMAR 26.11.29.08A, 40 CFR 60 Subpart Da, and PTC No. 001-3-0127 issued on August 10, 1994 and amended on November 17, 2005].
[Term IV.1.2D]

Compliance Methods for the Above (Description and citation):

Records of daily, quarterly and annual nitrogen oxides CEMS Q/A activities, in accordance with Term IV.1.4D. Records of quarterly reports to the MDE that include nitrogen oxides CEMS Q/A activities, in accordance with Term IV.1.5D.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall continuously monitor opacity of the stack gases using a continuous opacity monitor (COM) that is certified in accordance with 40 CFR Part 60, Appendix B and that meets the quality assurance criteria of COMAR 26.11.31. [Authority: COMAR 26.11.01.10 and 40 CFR 60.49Da].
- The Permittee shall ensure that valid COM data are obtained for a minimum of 90 percent of the operating hours in each quarter. [Authority: COMAR 26.11.01.10D(1)C].
[Term IV.1.3A]

Compliance Methods for the Above (Description and citation):

Continuous records of stack gas opacity, in accordance with Term IV.1.4A. Records of quarterly reports to the MDE that include stack gas opacity monitoring results, in accordance with Term IV.1.5A.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall perform requirements of the CAM plan submitted with the renewal application. See Tables IV-1.1 and IV-1.2 that follows this table. [Authority: COMAR 26.11.03.06C]. [Term IV.1.3B]

Compliance Methods for the Above (Description and citation):

Continuous records of opacity measured by COMS according to CAM Plan. Opacity is used to assess status with indicator range. Records of documentation and reports of any excursions according to CAM Plan.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall continuously monitor sulfur dioxide emissions in accordance with the requirements of 40 CFR Part 60, Subpart Da §60.47Da(b) to demonstrate compliance with the PSD limits for SO₂ specified in Table IV-1 [Authority: 40 CFR Part 60, subpart Da, COMAR 26.11.01.11B(1), and PSD Approval #94-01A].
- The Permittee shall ensure that valid CEM data are obtained for the SO_x and CO₂ monitoring systems for a minimum of 90 percent of the operating hours in each quarter. [Authority: PTC No. 001-3-0127 issued August 10, 1994 and reissued November 17, 2005].
- The Permittee must obtain at least two valid data hours to calculate a valid three-hour CEM average and at least twelve hours to calculate a valid daily CEM average. [Authority: PTC No. 001-3-0127 issued August 10, 1994 and reissued November 17, 2005]. [Term IV.1.3.C]

Compliance Methods for the Above (Description and citation):

Continuous records of sulfur dioxide emissions, in accordance with Term IV.1.4C. Records of quarterly reports to the MDE that include sulfur dioxide emissions monitoring results, in accordance with Term IV.1.5C.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- CSAPR - The Permittee shall comply with the monitoring requirements found in §97.606, §97.630, §97.631, §97.632, and §97.633. [Term IV.1.3C]

Compliance Methods for the Above (Description and citation):

Continuous monitoring is performed and records are maintained onsite

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall operate a continuous emission monitoring system to continuously monitor the NO_x emissions. The CEM system shall meet the performance specification of 40 CFR Part 75, Subpart H. [Authority: PTC No. 001-3-0127, 40 CFR Part 60 subpart Da, and PSD Approval #94-01A]
- The Permittee shall ensure that valid CEM data are obtained by the NO_x and CO₂ monitoring systems for a minimum of 90 percent of the operating hours in each quarter. [Authority: PTC No. 001-3-0127 issued August 10, 1994 and re-issued November 17, 2005].
- The Permittee must obtain at least twelve data hours to calculate a valid daily CEM average. [Authority: 001-3-0127 issued August 10, 1994 and re-issued November 17, 2005].

[Term IV.1.3D]

Compliance Methods for the Above (Description and citation):

Continuous records of nitrogen oxides emissions, in accordance with Term IV.1.4D. Records of quarterly reports to the MDE that include nitrogen oxides emissions monitoring results, in accordance with Term IV.1.5D.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- CSAPR - The Permittee shall comply with the monitoring requirements found in §97.406, §97.430, §97.431, §97.432, and §97.433 for the NOx Annual Trading Program and §97.506, §97.530, §97.531, §97.532, and §97.533 for the NOx Ozone Season Trading Program.
[Term IV.1.3D]

Compliance Methods for the Above (Description and citation):

Continuous monitoring is performed and records are maintained onsite

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall:
(1) Properly operate and maintain the ACFB boiler in a manner consistent with the boiler combustion optimal performance and design criteria, and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance. [Authority: COMAR 26.11.03.06C].
(2) Operate CEMs to continually monitor either the oxygen content or carbon dioxide of the ACFB boiler stack gases [Authority: 40 CFR Part 60 subpart Da and PSD Approval # 94-01A issued August 10, 1994 and reissued November 17, 2005].
[Term IV.1.3E]

Compliance Methods for the Above (Description and citation):

Continuous and periodic monitoring of multiple boiler operating parameters to maintain boiler combustion performance as designed. Maintenance of an operations manual and preventive maintenance plan. Records of maintenance performed on ACFB boiler, in accordance with Term IV.1.4E(2). Continuous records of CO₂ emissions, in accordance with Term IV.1.4E(3). Records of quarterly reports to the MDE that include CO₂ emission monitoring results in accordance with Term IV.1.5E(2).

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain all CEM records necessary to comply with the data reporting requirements of COMAR 26.11.01.11E and 40 CFR 60.49Da. [Authority: COMAR 26.11.01.11E and 40CFR 60.49Da]. [Term IV.1.4A]

Compliance Methods for the Above (Description and citation):

The following records are kept on-site:

- Continuous records of COMS readings.
- Records of the information specified in COMAR 26.11.01.11E and 40 CFR 60.49Da.
- Records of quarterly reports to the MDE that include stack gas opacity monitoring results.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain a record of the results of emissions testing for total particulate matter and PM10 for at least five years. [Authority: COMAR 26.11.03.06C]. [Term IV.1.4B]

Compliance Methods for the Above (Description and citation):

The following records are kept on-site:

- Record of particulate matter stack testing.
- Record of particulate matter stack testing report to the MDE.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain all CEM records necessary to comply with the data reporting requirements of COMAR 26.11.01.11E for the demonstration of compliance with the PSD standards. [Authority: COMAR 26.11.01.11E]. [Terms IV.1.4C and D]

Compliance Methods for the Above (Description and citation):

The following records are kept on-site:

- Continuous records of sulfur dioxide and nitrogen oxides CEMS readings.
- Records of the information specified in COMAR 26.11.01.11E.
- Records of quarterly reports to the MDE that include sulfur dioxide and nitrogen oxides emissions monitoring results.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- CSAPR - The Permittee shall comply with the record keeping requirements found in §97.606, §97.630, and §97.634 and the record keeping requirements found in §97.406, §97.430, and §97.434 for the NOx Annual Trading Program and §97.506, §97.530, and §97.534 for the NOx Ozone Season Trading Program. [Term IV.1.4C and D]

Compliance Methods for the Above (Description and citation):

Records are maintained onsite

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s):

Permit Term (Describe requirements and cross-reference):

- The Permittee shall:
 - (1) Maintain records of the heat input of the ACFB on a daily basis.
 - (2) Maintain records of maintenance performed on ACFB boiler that relate to combustion performance for at least five years [Authority: COMAR 26.11.03.06C].
 - (3) Maintain records of the CEMS readings for the oxygen or carbon dioxide content of the AFBC boiler stack gases for at least five years. [Authority: PSD Approval # 94-01A and COMAR 26.11.03.06C]. [Term IV.1.4E]

Compliance Methods for the Above (Description and citation):

The following records are kept on-site:

- Records of the heat input of the ACFB boiler.
- Records of maintenance performed on the ACFB boiler that relate to combustion performance
- Continuous records of CO₂ CEMS readings.
- Records of quarterly reports to the MDE that include CO₂ emission monitoring results.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following:
 - (i) The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards;
 - (ii) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;
 - (iii) The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the validity of emission data;
 - (iv) Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter;
 - (v) Quarterly quality assurance activities; and
 - (vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and
 - (vii) Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation." [Authority: COMAR 26.11.01.11E and 40 CFR 60.51Da].
- For any period for which opacity data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operation of the control system and affected facility during periods of data unavailability are to be compared with operation of the control systems and affected facility before and following the period of unavailability [Authority: 40 CFR 60.51Da(f)]. [Term IV1.5A]

Compliance Methods for the Above (Description and citation):

Records of quarterly reports to the MDE that include stack gas opacity monitoring results.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall submit the results of stack tests in a final report within 45 days from test completion. [Authority: COMAR 26.11.01.04A]. [Term IV.1.5B]

Compliance Methods for the Above (Description and citation):

Record of particulate matter stack test report to the MDE.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter that contains the information listed in COMAR 26.11.01.11E2)(c). See Record keeping Condition A above. [Authority: COMAR 26.11.01.11E].
- In addition, the Permittee shall report the NSPS percent reduction of the potential concentration of sulfur dioxide for each 30 successive boiler operating days, ending with the last 30 day period in the quarter, reasons for non-compliance with the standard, and description of corrective actions taken.[Authority: 40 CFR 60.51Da(b)(3)].
- For any period for which sulfur dioxide emissions data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operation of the control system and affected facility during periods of data unavailability are to be compared with operation of the control systems and affected facility before and following the period of unavailability [Authority: 40 CFR 60.51Da(f)].
- CSAPR - The Permittee shall comply with the reporting requirements found in §97.606, §97.630, §97.633 and §97.634. [Term IV.1.5C]

Compliance Methods for the Above (Description and citation):

Records of quarterly reports to the MDE that include sulfur dioxide emissions monitoring results. Records of reporting for CSAPR.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter that contains the information listed in COMAR 26.11.01.11E. See Record keeping Condition A above. [Authority: COMAR 26.11.01.11E].
- For any period for which nitrogen oxides emissions data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operation of the control system and affected facility during periods of data unavailability are to be compared with operation of the control systems and affected facility before and following the period of unavailability [Authority: 40 CFR 60.51Da(f)].
[Term IV.1.5D]

Compliance Methods for the Above (Description and citation):

Records of quarterly reports to the MDE that include nitrogen oxides emissions monitoring results.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- CSAPR - The Permittee shall comply with the reporting requirements found in §97.406, §97.430, §97.433 and §97.434 for the NOx Annual Trading Program and §97.506, §97.530, §97.533, and §97.534 for the NOx Ozone Season Trading Program.
[Term IV.1.5D]

Compliance Methods for the Above (Description and citation):

Records of reporting

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• The Permittee shall:

(1) Report on the quarterly CEM report the rolling 12 month heat input of the ACFB boiler during the quarter. [Authority: PSD Approval # 94-01A and PTC No. 001-3-0127 A].

(3) Submit a CEMS summary data for oxygen or carbon dioxide along with the quarterly SO_x and NO_x CEMs excess emissions report to the Department 30 days following the end of each calendar. [Authority: COMAR 26.11.01.11E and PTC No. 001-3-0127 A]. [Term IV.1.5E]

Compliance Methods for the Above (Description and citation):

Records of quarterly reports to the MDE that include the rolling 12 month heat input of the ACFB data and CO₂ emission monitoring results.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• 63.9984(f) You must demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than 180 days after the applicable date in paragraph (a), (b), (c), (d), or (e) of this section.

• 63.9991(a)(1) You must meet each emission limit and work practice standard in Tables 2 and 3 to this subpart that applies to your EGU, for each EGU at your source, except as provided under §63.10009.

• 63.10000(a) You must be in compliance with the emission limits and operating limits in this subpart. These limits apply to you at all times except during periods of startup and shutdown; however, for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs, you are required to meet the work practice requirements in Table 3 to this subpart during periods of startup or shutdown.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.1]

Compliance Methods for the Above (Description and citation):

In compliance with emission limits and work practice standards in accordance with Term IV.1.3.2 (Testing Requirements), Term IV.1.3.3 (Monitoring Requirements), Term IV.1.3.4 (Record Keeping Requirements), and Term IV.1.3.5 (Reporting Requirements)

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10000(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the EPA Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.1]

Compliance Methods for the Above (Description and citation):

Source operated and maintained as required based on, but not limited to, information required under Term IV.1.3.2 (Testing Requirements), Term IV.1.3.3 (Monitoring Requirements), AND Term IV.1.3.4 (Record Keeping Requirements)

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10005(a) General requirements. For each affected EGUs, the Permittee must demonstrate initial compliance with each applicable emissions limit in Table 2 of this subpart through performance testing.
- 63.10005(a)... you must demonstrate initial compliance no later than the applicable date in paragraph (f) of this section for tune-up work practices for existing EGUs, and in §63.9984 for other requirements for existing EGUs.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):

Demonstrated initial compliance within 180 days after the applicable date in 63.9984(b) in accordance with Term IV.1.3.2 (Testing Requirements), Term IV.1.3.3 (Monitoring Requirements), Term IV.1.3.4 (Record Keeping Requirements), and Term IV.1.3.5 (Reporting Requirements)

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10005(a)(1) To demonstrate initial compliance with an applicable emissions limit in Table 2 to this subpart using stack testing, the initial performance test generally consists of three runs at specified process operating conditions using approved methods. Also, if you choose to comply with an electrical output-based emission limit, you must collect hourly electrical load data during the test period.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):

Performed performance tests in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10005(a)(2) To demonstrate initial compliance using either a CMS that measures HAP concentrations directly (i.e., an Hg, HCl, or HF CEMS, or a sorbent trap monitoring system) or an SO₂ or PM CEMS, the initial performance test consists of 30- (or, if emissions averaging for Hg is used 90-) boiler operating days of data collected by the initial compliance demonstration date specified in § 63.9984 with the certified monitoring system. (i) The 30-boiler operating performance test must demonstrate compliance with the applicable Hg, HCl, HF, PM, or SO₂ emissions limit in Table 2 to this subpart. (ii) If you choose to comply with an electrical output-based emission limit, you must collect hourly electrical load data during the performance test period.

- 63.10005(d) CMS requirements. If, for a particular emission or operating limit, you are required to (or elect to) demonstrate initial compliance using a continuous monitoring system, the CMS must pass a performance evaluation prior to the initial compliance demonstration. If a CMS has been previously certified under another state or federal program and is continuing to meet the on-going quality-assurance (QA) requirements of that program, then, provided that the certification and QA provisions of that program meet the applicable requirements of §§63.10010(b) through (h), an additional performance evaluation of the CMS is not required under this subpart.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):

Performed performance tests in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• 63.10005(d)(1) For an affected coal-fired, solid oil-derived fuel-fired, or liquid oil-fired EGU, you may demonstrate initial compliance with the applicable SO₂, HCl, or HF emissions limit in Table 1 or 2 to this subpart through use of an SO₂, HCl, or HF CEMS installed and operated in accordance with part 75 of this chapter or appendix B to this subpart, as applicable. Initial compliance is achieved if the arithmetic average of 30-boiler operating days of quality-assured CEMS data, expressed in units of the standard (see §63.10007(e)), meets the applicable SO₂, PM, HCl, or HF emissions limit in Table 1 or 2 to this subpart. Use Equation 19-19 of Method 19 in appendix A-7 to part 60 of this chapter to calculate the 30-boiler operating day average emissions rate. (NOTE: For this calculation, the term Ehj in Equation 19-19 must be in the same units of measure as the applicable HCl or HF emission limit in Table 1 or 2 to this subpart).

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):

Performed performance tests in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• 63.10005(d)(3) For affected EGUs that are either required to or elect to demonstrate initial compliance with the applicable Hg emission limit in Table 1 or 2 of this subpart using Hg CEMS or sorbent trap monitoring systems, initial compliance must be demonstrated no later than the applicable date specified in §63.9984(f) for existing EGUs and in paragraph (g) of this section for new EGUs. Initial compliance is achieved if the arithmetic average of 30-boiler operating days of quality-assured CEMS (or sorbent trap monitoring system) data, expressed in units of the standard (see section 6.2 of appendix A to this subpart), meets the applicable Hg emission limit in Table 1 or 2 to this subpart.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):

Demonstrated initial compliance within 180 days after the applicable date in 63.9984(b) in accordance with Term IV.1.3.2 (Testing Requirements), Term IV.1.3.3 (Monitoring Requirements), Term IV.1.3.4 (Record Keeping Requirements), and Term IV.1.3.5 (Reporting Requirements)

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10005(e) Tune-ups. All affected EGUs are subject to the work practice standards in Table 3 of this subpart. As part of your initial compliance demonstration, you must conduct a performance tune-up of your EGU according to § 63.10021(e).
- 63.10005(f) For existing affected sources a tune-up may occur prior to April 16, 2012, so that existing sources without neural networks have up to 42 calendar months (3 years from promulgation plus 180 days) or, in the case of units employing neural network combustion controls, up to 54 calendar months (48 months from promulgation plus 180 days) after the date that is specified for your source in § 63.9984 and according to the applicable provisions in § 63.7(a)(2) as cited in Table 9 to this subpart to demonstrate compliance with this requirement. If a tune-up occurs prior to such date, the source must maintain adequate records to show that the tune-up met the requirements of this standard.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):

Performed compliance demonstration in accordance with Term IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10005(h)(1) An EGU may qualify for low emitting EGU (LEE) status for Hg, HCl, HF, filterable PM, total non-Hg HAP metals, or individual non-Hg HAP metals if you collect performance test data that meet the requirements of this paragraph (h), and if those data demonstrate: (i) For all pollutants except Hg, performance test emissions results less than 50 percent of the applicable emissions limits in Table 2 to this subpart for all required testing for 3 consecutive years; or (ii) For Hg emissions from an existing EGU, either: (A) Average emissions less than 10 percent of the applicable Hg emissions limit in Table 2 to this subpart (expressed either in units of lb/TBtu or lb/GWh); or (B) Potential Hg mass emissions of 29.0 or fewer pounds per year and compliance with the applicable Hg emission limit in Table 2 to this subpart (expressed either in units of lb/TBtu or lb/GWh).
- 63.10005(h)(2) For all pollutants except Hg, you must conduct all required performance tests described in § 63.10007 to demonstrate that a unit qualifies for LEE status. (i) When conducting emissions testing to demonstrate LEE status, you must increase the minimum sample volume specified in Table 2 nominally by a factor of two. (ii) Follow the instructions in §63.10007(e) and Table 5 to this subpart to convert the test data to the units of the applicable standard.
- 63.10005(h)(3) For Hg, you must conduct a 30-boiler operating day performance test using Method 30B in appendix A-8 to part 60 of this chapter to determine whether a unit qualifies for LEE status; and meet other requirements of 63.10005(h)(3).

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):

Qualified LEE status for Hg and demonstrating LEE status for filterable PM in accordance with Term IV.1.3.2 (Testing Requirements), Term IV.1.3.3 (Monitoring Requirements), Term IV.1.3.4 (Record Keeping Requirements), and Term IV.1.3.5 (Reporting Requirements)

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10006(b) For affected units meeting the LEE requirements of § 63.10005(h), you must repeat the performance test once every 3 years (once every year for Hg) according to Table 5 and § 63.10007. Should subsequent emissions testing results show the unit does not meet the LEE eligibility requirements, LEE status is lost.
- 63.10006(f) Unless you follow the requirements listed in paragraphs (g) and (h) of this section, performance tests required at least every 3 calendar years must be completed within 35 to 37 calendar months after the previous performance test; performance tests required at least every year must be completed within 11 to 13 calendar months after the previous performance test; and performance tests required at least quarterly must be completed within 80 to 100 calendar days after the previous performance test, except as otherwise provided in § 63.10021(d)(1).
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):

Qualified LEE status for Hg and demonstrating LEE status for filterable PM in accordance with Term IV.1.3.2 (Testing Requirements), Term IV.1.3.3 (Monitoring Requirements), Term IV.1.3.4 (Record Keeping Requirements), and Term IV.1.3.5 (Reporting Requirements)

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10006(i) If you are required to meet an applicable tune-up work practice standard, you must conduct a performance tune-up according to § 63.10021(e). (1) For EGUs not employing neural network combustion optimization during normal operation, each performance tune-up specified in § 63.10021(e) must be no more than 36 calendar months after the previous performance tune-up. (2) For EGUs employing neural network combustion optimization systems during normal operation, each performance tune-up specified in § 63.10021(e) must be no more than 48 calendar months after the previous performance tune-up.
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):

Performed compliance demonstration in accordance with Term IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10006(j) You must report the results of performance tests and performance tune-ups within 60 days after the completion of the performance tests and performance tune-ups. The reports for all subsequent performance tests must include all applicable information required in § 63.10031.
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):
Reported in accordance with Term IV.1.3.5

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10007(a)(1) If you use CEMS (Hg, HCl, SO₂, or other) to determine compliance with a 30- (or, if applicable, 90-) boiler operating day rolling average emission limit, you must collect quality- assured CEMS data for all unit operating conditions, including startup and shutdown (see §63.10011(g) and Table 3 to this subpart), except as otherwise provided in §63.10020(b). Emission rates determined during startup periods and shutdown periods (as defined in §63.10042) are not to be included in the compliance determinations, except as otherwise provided in §§63.10000(c)(1)(vi)(B) and 63.10005(a)(2)(iii).
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):
Collected appropriate data in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10007(a)(2) If you conduct performance testing with test methods in lieu of continuous monitoring, operate the unit at maximum normal operating load conditions during each periodic (e.g., quarterly) performance test. Maximum normal operating load will be generally between 90 and 110 percent of design capacity but should be representative of site specific normal operations during each test run.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):

Performed performance testing in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10007(b) You must conduct each performance test (including traditional 3-run stack tests, 30-boiler operating day tests based on CEMS data (or sorbent trap monitoring system data), and 30-boiler operating day Hg emission tests for LEE qualification) according to the requirements in Table 5 to this subpart.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):

Performed performance testing in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10007(d) Except for a 30-boiler operating day performance test based on CEMS (or sorbent trap monitoring system) data, where the concept of test runs does not apply, you must conduct a minimum of three separate test runs for each performance test, as specified in §63.7(e)(3). Each test run must comply with the minimum applicable sampling time or volume specified in Table 1 or 2 to this subpart. Sections 63.10005(d) and (h), respectively, provide special instructions for conducting performance tests based on CEMS or sorbent trap monitoring systems, and for conducting emission tests for LEE qualification.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):

Performed performance testing in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10007(e) To use the results of performance testing to determine compliance with the applicable emission limits in Table 1 or 2 to this subpart, proceed as given in 63.10007(e).

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):

Performed performance testing in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• 63.10007(f) If you elect to (or are required to) use CEMS to continuously monitor Hg, HCl, HF, SO₂, or PM emissions (or, if applicable, sorbent trap monitoring systems to continuously collect Hg emissions data), the default values (in (1) and (2)) are available for use in the emission rate calculations during startup periods or shutdown periods (as defined in §63.10042). For the purposes of this subpart, these default values are not considered to be substitute data.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):

Performed performance testing in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• 63.10007(g) Upon request, you shall make available to the EPA Administrator such records as may be necessary to determine whether the performance tests have been done according to the requirements of this section.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.2]

Compliance Methods for the Above (Description and citation):

Records shall be made available to EPA upon request

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10010 You must comply with the monitoring installation, operation, and maintenance requirements of 63.10010. [Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.3]

Compliance Methods for the Above (Description and citation):

Performed compliance monitoring in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance X Continuous Compliance With the exception of reported deviations,

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10011(c)(2) For a unit that uses a CEMS to measure SO₂ or PM emissions for initial compliance, the first 30 boiler operating day average emission rate obtained with certified CEMS after the applicable date in §63.9984 (or, if applicable, prior to that date, as described in §63.10005(b)(2)), expressed in units of the standard, is the initial performance test. Initial compliance is demonstrated if the results of the performance test meet the applicable SO₂ or filterable PM emission limit in Table 1 or 2 to this subpart. [Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.3]

Compliance Methods for the Above (Description and citation):

Performed performance testing in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance X Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10011(f)(1) You must determine the fuel whose combustion produces the least uncontrolled emissions, i.e., the cleanest fuel, either natural gas or distillate oil, that is available on site or accessible nearby for use during periods of startup or shutdown. •
- 63.10011(f)(2) Your cleanest fuel, either natural gas or distillate oil, for use during periods of startup or shutdown determination may take safety considerations into account.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.3]

Compliance Methods for the Above (Description and citation):

Performed compliance monitoring in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10011(g) You must follow the startup or shutdown requirements as given in Table 3 to this subpart for each coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGU; and follow other requirements of 63.10011(g).

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.3]

Compliance Methods for the Above (Description and citation):

Performed compliance monitoring in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10020(a) You must monitor and collect data according to this section and the sitespecific monitoring plan required by §63.10000(d).
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.3]

Compliance Methods for the Above (Description and citation):

Performed compliance monitoring in accordance with Terms IV.1.3.2 (Testing Requirements), IV.1.3.3 (Monitoring Requirements), IV.1.3.4 (Record Keeping Requirements), and IV.1.3.5 (Reporting Requirements)

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10020(b) You must operate the monitoring system and collect data at all required intervals at all times that the affected EGU is operating, except for periods of monitoring system malfunctions or out-of-control periods (see §63.8(c)(7) of this part), and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. You are required to affect monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.3]

Compliance Methods for the Above (Description and citation):

Performed compliance monitoring in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10020(c) You may not use data recorded during EGU startup or shutdown in calculations used to report emissions, except as otherwise provided in §§63.10000(c)(1)(vi)(B) and 63.10005(a)(2)(iii). In addition, data recorded during monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, or required monitoring system quality assurance or control activities may not be used in calculations used to report emissions or operating levels. You must use all of the qualityassured data collected during all other periods in assessing the operation of the control device and associated control system.
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.3]

Compliance Methods for the Above (Description and citation):
Performed compliance monitoring in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10020(d) Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments), failure to collect required data is a deviation from the monitoring requirements.
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.3]

Compliance Methods for the Above (Description and citation):
Performed compliance monitoring in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10020(e) You must comply with the additional requirements during startup periods or shutdown periods given in 63.10020(e). [Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.3]

Compliance Methods for the Above (Description and citation):

Performed compliance monitoring in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10021(a) You must demonstrate continuous compliance with each emissions limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that applies to you, according to the monitoring specified in Table 7 to this subpart and paragraphs (b) through (g) of this section." Note: Table 6- Not Applicable , See Table 7 at end of this section). [Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.3]

Compliance Methods for the Above (Description and citation):

Demonstrated continuous compliance in accordance with Term IV.1.3.2 (Testing Requirements), Term IV.1.3.3 (Monitoring Requirements), Term IV.1.3.4 (Record Keeping Requirements), and Term IV.1.3.5 (Reporting Requirements)

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• 63.10021(b) Except as otherwise provided in §63.10020(c), if you use a CEMS to measure SO₂, PM, HCl, HF, or Hg emissions, or using a sorbent trap monitoring system to measure Hg emissions, you must demonstrate continuous compliance by using all quality-assured hourly data recorded by the CEMS (or sorbent trap monitoring system) and the other required monitoring systems (e.g., flow rate, CO₂, O₂, or moisture systems) to calculate the arithmetic average emissions rate in units of the standard on a continuous 30-boiler operating day (or, if alternate emissions averaging is used for Hg, 90-boiler operating day) rolling average basis, updated at the end of each new boiler operating day. Use Equation 8 to determine the 30- (or, if applicable, 90-) boiler operating day rolling average. [Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.3]

Compliance Methods for the Above (Description and citation):

Demonstrated continuous compliance in accordance with Term IV.1.3.2 (Testing Requirements), Term IV.1.3.3 (Monitoring Requirements), Term IV.1.3.4 (Record Keeping Requirements), and Term IV.1.3.5 (Reporting Requirements)

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• 63.10021(d) If you use quarterly performance testing to demonstrate compliance with one or more applicable emissions limits in Table 1 or 2 to this subpart, you
(1) May skip performance testing in those quarters during which less than 168 boiler operating hours occur, except that a performance test must be conducted at least once every calendar year.
• 63.10021(d)(2) Must conduct the performance test as defined in Table 5 to this subpart and calculate the results of the testing in units of the applicable emissions standard. [Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.3]

Compliance Methods for the Above (Description and citation):

Performed performance testing in accordance with Terms IV.1.3.2 and IV.1.3.3

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• 63.10021(e) If you must conduct periodic performance tune-ups of your EGU(s), as specified in paragraphs (e)(1) through (9) of this section, perform the first tune-up as part of your initial compliance demonstration. Notwithstanding this requirement, you may delay the first burner inspection until the next scheduled unit outage provided you meet the requirements of §63.10005. Subsequently, you must perform an inspection of the burner at least once every 36 calendar months unless your EGU employs neural network combustion optimization during normal operations in which case you must perform an inspection of the burner and combustion controls at least once every 48 calendar months.
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.3]

Compliance Methods for the Above (Description and citation):

Performed compliance demonstrations in accordance with Term IV.1.3.2 (Testing Requirements), Term IV.1.3.3 (Monitoring Requirements), Term IV.1.3.4 (Record Keeping Requirements), and Term IV.1.3.5 (Reporting Requirements)

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• 63.10032(a) You must keep records according to paragraphs (a)(1) and (2) of this section.
(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in § 63.10(b)(2)(xiv).
(2) Records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in § 63.10(b)(2)(viii).
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.4]

Compliance Methods for the Above (Description and citation):

Records are maintained onsite

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• 63.10032(b) For each CEMS and CPMS, you must keep records according to paragraphs (b)(1) through (4) of this section.

(1) Records described in § 63.10(b)(2)(vi) through (xi)

(2) Previous (i.e., superseded) versions of the performance evaluation plan as required in § 63.8(d)(3)

(3) Request for alternatives to relative accuracy test for CEMS as required in § 63.8(f)(6)(i)

(4) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.4]

Compliance Methods for the Above (Description and citation):

Records are maintained onsite

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• 63.10032(c) You must keep the records required in Table 7 to this subpart to show continuous compliance with each emission limit and operating limit that applies to you.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.4]

Compliance Methods for the Above (Description and citation):

Records are maintained onsite

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10032(d) For each EGU subject to an emission limit, you must also keep the records in paragraphs (d)(1) and (3) of this section.
(1) You must keep records of monthly fuel use by each EGU, including the type(s) of fuel and amount(s) used.
(3) For an EGU that qualifies as an LEE under § 63.10005(h), you must keep annual records that document that your emissions in the previous stack test(s) continue to qualify the unit for LEE status for an applicable pollutant, and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the pollutant to increase within the past year.
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.4]

Compliance Methods for the Above (Description and citation):
Records are maintained onsite

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10032(f) You must keep records of the occurrence and duration of each startup and/or shutdown.
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.4]

Compliance Methods for the Above (Description and citation):
Records are maintained onsite

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10032(g) You must keep records of the occurrence and duration of each malfunction of an operation (i.e., process equipment) or the air pollution control and monitoring equipment.
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.4]

Compliance Methods for the Above (Description and citation):

Records are maintained onsite

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10032(h) You must keep records of actions taken during periods of malfunction to minimize emissions in accordance with §63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.4]

Compliance Methods for the Above (Description and citation):

Records are maintained onsite

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10032(i) You must keep records of the type(s) and amount(s) of fuel used during each startup or shutdown. [Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.4]

Compliance Methods for the Above (Description and citation):

Records are maintained onsite

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10033(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1).
- 63.10033(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- 63.10033(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off site for the remaining 3 years. [Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.4]

Compliance Methods for the Above (Description and citation):

Records are maintained onsite

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10030(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.5]

Compliance Methods for the Above (Description and citation):

Notifications were submitted

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10030(b) As specified in § 63.9(b)(2), if you startup your affected source before April 16, 2012, you must submit an Initial Notification not later than 120 days after April 16, 2012.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.5]

Compliance Methods for the Above (Description and citation):

Initial notification was submitted

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10030(d) When you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.5]

Compliance Methods for the Above (Description and citation):

Notifications of intent to conduct performance tests were submitted

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10030(e) When you are required to conduct an initial compliance demonstration as specified in § 63.10011(a), you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (8), as applicable.
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.5]

Compliance Methods for the Above (Description and citation):

Notification of Compliance Status was submitted

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10031(a) You must submit each report in Table 8 to this subpart that applies to you.
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.5]

Compliance Methods for the Above (Description and citation):

Compliance Report was submitted

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10031(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 8 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.
(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.9984 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in § 63.9984.
(2) The first compliance report must be postmarked or submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in § 63.9984.
(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
(4) Each subsequent compliance report must be postmarked or submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.5]

Compliance Methods for the Above (Description and citation):

Compliance Report was submitted

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• 63.10031(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 8 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.5]

Compliance Methods for the Above (Description and citation):

Compliance Report was submitted

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

• 63.10031(c) The compliance report must contain the information required in paragraphs (c)(1) through (4) of this section; as well as (d) and (g).

[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.5]

Compliance Methods for the Above (Description and citation):

Compliance Report was submitted

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10031(e) Each affected source that has obtained a Title V operating permit pursuant to part 70 or part 71 of this chapter must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 8 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.5]

Compliance Methods for the Above (Description and citation):
Compliance Report was submitted

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-1 (ACFB boiler)

Permit Term (Describe requirements and cross-reference):

- 63.10031(f) You must make submissions according to the requirements of 63.10031(f).
[Authority: 40 CFR Part 63, Subpart UUUUU] [Term IV.1.3.5]

Compliance Methods for the Above (Description and citation):
Submissions were made as required

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-2 (limestone truck unloading operation)

Permit Term (Describe requirements and cross-reference):

- 40 CFR §60.672(a)(2) – NSPS Subpart OOO, which prohibits the discharge into the atmosphere from any transfer point on belt conveyors or from any other affected facility, any stack emissions which exhibit greater than 7 percent opacity for dry control devices.
- 40 CFR §60.672(b) – NSPS Subpart OOO, which prohibits the discharge into the atmosphere from any transfer point on belt conveyors or from any other affected facility, any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (d), (e) and (f) of §60.672.
- 40 CFR 60 Part 60.672(e) -NSPS Subpart OOO, which requires any transfer points on a conveyors belt or any other affected facility enclosed in a building to comply with the emissions limits in paragraph (a) and (b) of §60.672 or the building enclosing affected facility or facilities must comply with emission limits of §60.672(e)(1) and (2).
- COMAR 26.11.06.02C (1), which prohibits the discharge of visible emissions from any installation other than water in an uncombined form, which is greater than 20% opacity.”, with the exception under COMAR 26.11.06.02C(2) [Note this applies to baghouse discharge].

Note: The same monitoring, record keeping and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and COMAR 26.11.06.02C (1).
[Term IV.2.1A]

Compliance Methods for the Above (Description and citation):
Monthly monitoring of baghouse exhaust visible emissions, in accordance with Term IV.2.3A. Records of visible emissions observations, in accordance with Term IV.2.4A.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-2 (limestone truck unloading operation)

Permit Term (Describe requirements and cross-reference):

- [B1] 40 CFR §60.672(a) – NSPS Subpart OOO, which prohibits stack emissions which contain particulate matter in excess of 0.022 gr/scfd (0.05 g/dscm).
- [B2] PSD Approval No. 94-01A, which required the limestone unloading baghouse to be designed to achieve a particulate matter emissions limit of 0.002 grains/actual cubic feet.

Note: B1. and B2. apply to the baghouse exhaust. For particulate emissions from unconfined sources see Table IV – 10 for requirements relating to fugitive emissions from limestone unloading operations.
The same monitoring, record keeping and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and the PSD limit.
[Term IV.2.1B]

Compliance Methods for the Above (Description and citation):
Manufacturer specifications for the baghouse bags. Maintenance of a preventative maintenance plan for each baghouse, in accordance with Term IV.2.3B. Performance of maintenance activities, in accordance with the preventative maintenance plan. Records of maintenance performed, in accordance with Term IV.2.4B.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-2 (limestone truck unloading operation)

Permit Term (Describe requirements and cross-reference):

• The Permittee shall perform a visual observation of the baghouse exhaust and the doors, windows, vents, or other openings in the building to look for visible emissions once a month for 1 minute. The observations shall be made while affected facilities are operating.

If emissions in the exhaust gases are visible, the Permittee shall perform the following:

- 1) Inspect all process and/or control equipment that may affect visible emissions;
- 2) Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases or fugitive emissions from the building openings are eliminated;
- 3) Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and
- 4) If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions. [Authority: COMAR 26.11.03.06C].

[Term IV.2.3A]

Compliance Methods for the Above (Description and citation):

Records of visible emissions observations, and any subsequent repairs, adjustments and Method 9 observations, in accordance with Term IV.2.4A.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-2 (limestone truck unloading operation)

Permit Term (Describe requirements and cross-reference):

• The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed. [Authority: COMAR 26.11.03.06C].

[Term IV.2.3B]

Compliance Methods for the Above (Description and citation):

Maintenance of a preventative maintenance plan that describes maintenance activities and time schedule for completing each activity. Record of maintenance performed on each baghouse, in accordance with Term IV.2.4B.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-2 (limestone truck unloading operation)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain a record of the results of all visual emission observations [Authority: COMAR 26.11.03.06C] [Term IV.2.4A]

Compliance Methods for the Above (Description and citation):

Records of visible emissions observations are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-2 (limestone truck unloading operation)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. [Authority: COMAR 26.11.03.06C]. [Term IV.2.4B]

Compliance Methods for the Above (Description and citation):

Records of maintenance performed on each baghouse are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-2 (limestone truck unloading operation)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations" [Authority: COMAR 26.11.03.06C]. [Term IV.2.5A]

Compliance Methods for the Above (Description and citation):

No reportable incidents of visible emissions occurred.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-2 (limestone truck unloading operation)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall submit maintenance records when requested by the Department. [Authority: COMAR 26.11.03.06C] [Term IV.2.5B]

Compliance Methods for the Above (Description and citation):

NA - No request was made by the Department to submit maintenance records.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryers)

Permit Term (Describe requirements and cross-reference):

- 40 CFR §60.672(a) – NSPS Subpart OOO, which prohibits the discharge into the atmosphere from any transfer point on belt conveyors or from any other affected facility, any stack emissions which exhibit greater than 7 percent opacity. [Raymond mill controlled with baghouse].
- 40 CFR 60 Part 60.672(e) - NSPS Subpart OOO, which requires any transfer point on a conveyer belt or any other affected facility in an enclosed building to comply with the emissions limits of paragraph (a) and (b) of §60.672 or the building enclosing the affected facility or facilities must comply with the emission limits of §60.672(e)(1) and (2).
- COMAR 26.11.06.02C(1), which prohibits the discharge of visible emissions from any installation other than water in an uncombined form, which is greater than 20% opacity, with the exception under COMAR 26.11.06.02C(2). [Baghouse exhaust on Raymond mill and conveyor].

Note: The same monitoring, record keeping and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and COMAR 26.11.06.02C.
[Term IV.3.1A]

Compliance Methods for the Above (Description and citation):

Monthly monitoring of baghouse exhaust visible emissions, in accordance with Term IV.3.3A. Records of visible emissions observations, in accordance with Term IV.3.4A.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- 40 CFR §60.672(a) – NSPS Subpart OOO, which prohibits stack emissions which contain particulate matter in excess of 0.022 gr/scfd (0.05 g/dscm).
- PSD No.94.01A, which requires the Raymond mill/dryer system to be designed to meet a particulate emissions limit of 0.055 lbs/MMBtu heat input.
- PSD No.94.01A, which requires the fabric filter baghouse on the mill/dryer system to be designed to meet a limit of 0.002 grains/actual cubic feet.

Note: The same monitoring, record keeping and reporting strategy will be used to demonstrate compliance with the provisions of 40 CFR 60.672 and the PSD limit.
[Term IV.3.1B]

Compliance Methods for the Above (Description and citation):

Manufacturer specifications for the baghouse bags. Development and maintenance of a preventative maintenance plan for each baghouse, in accordance with Term IV3.3B. Performance of maintenance activities in accordance with the plan. Records of maintenance performed, in accordance with Term IV3.4B.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- PSD Approval # 94-01A, which the Raymond mill/ limestone dryers to be designed to achieve an SO₂ emission limit of 0.052 lbs/MMBtu of heat input.
- PSD Approval # 94-01A, which limit the maximum sulfur content of the fuel to 0.05% by weight.

Note: The SO₂ limit of 0.052 lbs/MMBtu is equivalent to 0.05% sulfur content by weight.
[Term IV.3.1C]

Compliance Methods for the Above (Description and citation):

Records of fuel supplier certifications stating that the fuel is in compliance with this requirement, in accordance with Terms IV.3.3C and IV.3.4C.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- PSD Approval # 94-01A, which requires the Raymond mill and limestone dryers to be designed to achieve a NO_x emissions limit of 0.24 lbs/MMBtu of heat input.
- COMAR 26.11.09.08B (1) (c) - Emissions standard in Pounds per MMBtu of heat input. – Fuel: Gas/Oil- 0.25.

[Term IV.3.1D]

Compliance Methods for the Above (Description and citation):

Raymond mill and limestone dryers are designed to achieve the NO_x emissions limit. Records of annual combustion analyses, in accordance with Terms IV.3.3D and IV.3.4D.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- PSD Approval # 94-01A, which requires the Raymond mill/ limestone dryers to be designed to achieve emissions as follows:

CO: 0.068 lbs/MMBtu of heat input

VOC: 0.002 lbs/MMBtu of heat input

[Term IV.3.1E]

Compliance Methods for the Above (Description and citation):

Raymond mill and limestone dryers are designed to achieve the CO and VOC emissions limits. Maintenance of an operations manual and preventative maintenance plan that relate to combustion performance, in accordance with Term IV.3.3E. Performance of maintenance activities in accordance with the plan. Records of maintenance performed, in accordance with Term IV.3.4E.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- PSD Approval # 94-01A, which limits the combined annual operating hours for both dryers to 8760 hours on a rolling basis.

[Term IV.3.1F]

Compliance Methods for the Above (Description and citation):

Records of the hours of operation of each dryer, in accordance with Terms IV.3.3F and IV.3.4F.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

• The Permittee shall visually inspect the exhaust gases from each baghouse stack when the drying and crushing system is operating to look for visible emissions once a month for 1 minute and shall record the results of each observation.

If visible emission are observed, the Permittee shall perform the following:

- 1) Inspect all process and/or control equipment that may affect visible emissions;
- 2) Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated;
- 3) Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and
- 4) If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions. [Authority: COMAR 26.11.03.06C].

[Term IV.3.3A]

Compliance Methods for the Above (Description and citation):

Records of visible emissions observations, and any subsequent repairs, adjustments and Method 9 observations, in accordance with Term IV.3.4A.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

•The Permittee shall develop and maintain a preventative maintenance plan, for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed. [Authority: COMAR 26.11.03.06C].

[Term IV.3.3B]

Compliance Methods for the Above (Description and citation):

Maintenance of a preventative maintenance plan that describes the maintenance activity and time schedule for completing each activity. Log of maintenance performed on each baghouse, in accordance with Term IV.3.4B.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall obtain fuel supplier, certification indicating that the oil complies with the limitation on sulfur content of the fuel oil [Authority: COMAR 26.11.03.06C].
[Term IV.3.3C]

Compliance Methods for the Above (Description and citation):

Records of fuel supplier certifications stating that the fuel is in compliance with this requirement, in accordance with Term IV.3.4C.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall perform a combustion analysis for each Eclipse dryer at least once each calendar year and optimize combustion based on analysis [Authority: COMAR 26.11.03.06C].
[Term IV.3.3D]

Compliance Methods for the Above (Description and citation):

Records of annual combustion analyses, in accordance with Term IV.3.4D.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall properly operate and maintain the Raymond mill/ limestone dryers; and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance. [Authority: COMAR 26.11.03.06] [Term IV.3.3E]

Compliance Methods for the Above (Description and citation):

Maintenance of an operations manual and preventative maintenance plan that relate to combustion performance. Performance of maintenance activities in accordance with the plan. Records of maintenance performed, in accordance with Term IV.3.4E.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall keep track of the hours of operation for each limestone dryer so as to determine compliance with the limitation of PSD Approval # 94-01A. [Term IV.3.3F]

Compliance Methods for the Above (Description and citation):

Records of the hours of operation of each dryer, in accordance with Term IV.3.4F.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain a record of the results of all visual emission observations. [Authority: COMAR 26.11.03.06C]. [Term IV.3.4A]

Compliance Methods for the Above (Description and citation):

Records of visual emissions observations are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. [Authority: COMAR 26.11.03.06C]. [Term IV.3.4B]

Compliance Methods for the Above (Description and citation):

Records of maintenance performed on each baghouse are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation. [Authority: COMAR 26.11.03.06C]
[Term IV.3.4C]

Compliance Methods for the Above (Description and citation):

Records of fuel supplier certifications are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain records of the annual combustion analyses. [Authority: COMAR 26.11.03.06C].
[Term IV.3.4D]

Compliance Methods for the Above (Description and citation):

Records of annual combustion analyses are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain log of maintenance performed on the Raymond mill/ limestone dryer systems that relate to combustion performance. [Authority: COMAR 26.11.03.06C].
[Term IV.3.4E]

Compliance Methods for the Above (Description and citation):

Records of maintenance performed on the Raymond mill/ limestone dryer systems that relate to combustion performance are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall keep monthly records of the daily operating hours of each dryer. [Authority: PTC 01-6-0136].
[Term IV.3.4F]

Compliance Methods for the Above (Description and citation):

Records of the daily operating hours of each dryer are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations" [Authority: COMAR 26.11.03.06C]. [Term IV.3.5A]

Compliance Methods for the Above (Description and citation):

No reportable incidents of visible emissions occurred.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall submit maintenance records when requested by the Department. [Authority: COMAR 26.11.03.06C]. [Term IV.3.5B]

Compliance Methods for the Above (Description and citation):

No request was made by the Department to submit maintenance records.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

•The Permittee shall submit records of sulfur in fuel certifications to the Department upon request. [Authority: COMAR 26.11.03.06C]. [Term IV.3.5C]

Compliance Methods for the Above (Description and citation):

No request was made by the Department to submit fuel certifications.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

•The Permittee shall report the results of combustion analyses to the Department upon request. [Authority: COMAR 26.11.03.06C]. [Term IV.3.5D]

Compliance Methods for the Above (Description and citation):

No request was made by the Department to submit combustion analyses.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-3 and EU-4 (limestone crushing and drying systems; limestone dryer)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall submit the hours of operation of the two limestone dryers as an attachment to the annual emissions certification report [Authority: COMAR 26.11.03.06C].
[Term IV.3.5F]

Compliance Methods for the Above (Description and citation):
Records of the annual emissions certification report to the MDE.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-5 (limestone storage silo)

Permit Term (Describe requirements and cross-reference):

- COMAR 26.11.06.02C (1) which limits the discharge of visible emissions from any installation other than water in an uncombined form, which is greater than 20% opacity with the exception under COMAR 26.11.06.02C(2).
- 40 CFR §60.672(a) and (f) – NSPS Subpart OOO – which prohibits stack emissions which exhibit greater than 7 percent opacity from a baghouse that controls emissions from a single enclosed storage bin.

Note: The monitoring, record keeping, and reporting strategy to demonstrate compliance with the NSPS opacity standard will be used for the compliance demonstration of the COMAR opacity standard.
[Term IV.4.1A]

Compliance Methods for the Above (Description and citation):
Monthly monitoring of baghouse exhaust visible emissions, in accordance with Term IV.4.3A. Records of visible emissions observations, in accordance with Term IV.4.4A.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-5 (limestone storage silo)

Permit Term (Describe requirements and cross-reference):

- PSD Approval No.94-01A- which required the fabric filter baghouse to be designed to achieve a particulate matter emissions limit of 0.003 grains/actual cubic feet. [Term IV.4.1B]

Compliance Methods for the Above (Description and citation):

Manufacturer specifications for baghouse bags. Development and maintenance of a preventative maintenance plan for each baghouse, in accordance with Term IV.4.3B. Performance of maintenance activities in accordance with the plan. Log of maintenance performed, in accordance with Term IV.4.4B.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-5 (limestone storage silo)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall visually inspect the exhaust gases from each baghouse stack when a silo is being filled to look for visible emissions once a month for 1 minute and shall record the results of each observation. If emissions in the exhaust gases are visible, the Permittee shall perform the following:
 - 1) Inspect all process and/or control equipment that may affect visible emissions;
 - 2) Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated;
 - 3) Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and
 - 4) If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions. [Authority: COMAR 26.11.03.06C].[Term IV.4.3A]

Compliance Methods for the Above (Description and citation):

Records of visible emissions observations, and any subsequent repairs, adjustments and Method 9 observations, in accordance with Term IV.4.4A.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-5 (limestone storage silo)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed. [Authority: COMAR 26.11.03.06C].
[Term IV.4.3B]

Compliance Methods for the Above (Description and citation):

Maintenance of a preventative maintenance plan that describes the maintenance activity and time schedule for completing each activity. Record of maintenance performed on each baghouse, in accordance with Term IV.4.4B.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-5 (limestone storage silo)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain a record of the results of all visual emission observations. [Authority: COMAR 26.11.03.06C].
[Term IV.4.4A]

Compliance Methods for the Above (Description and citation):

Records of visual emission observations are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-5 (limestone storage silo)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. [Authority: COMAR 26.11.03.06C] [Term IV.4.4B]

Compliance Methods for the Above (Description and citation):

Records of maintenance performed on each baghouse are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-5 (limestone storage silo)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations". [Authority: COMAR 26.11.03.06C]. [Term IV.4.5A]

Compliance Methods for the Above (Description and citation):

No reportable incidents of visible emissions occurred.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-5 (limestone storage silo)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall submit maintenance records when requested by the Department. [Authority: COMAR 26.11.03.06C]. [Term IV.4.5B]

Compliance Methods for the Above (Description and citation):

No request was made by the MDE to submit maintenance records.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-6, EU-7 and EU-8 (coal truck unloading, processing operation and storage)

Permit Term (Describe requirements and cross-reference):

- 40 CFR §60.254(a) – NSPS Subpart Y, which prohibits visible emissions from the stack, which exhibit greater than 20 percent opacity.
- COMAR 26.11.06.02C(1), which limits the discharge of visible emissions from any installations, other than water in an uncombined form, which is greater than 20% opacity, with the exception under COMAR 26.11.06.02C(2).

Note: The monitoring, record keeping, and reporting strategy to demonstrate compliance with the NSPS opacity standard will be used for the compliance demonstration of the COMAR opacity standard. [Term IV.5.1A]

Compliance Methods for the Above (Description and citation):

Monthly monitoring of baghouse exhaust visible emissions, in accordance with Term IV.5.3A. Records of visible emissions observations, in accordance with Term IV.5.4A.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-6, EU-7 and EU-8 (coal truck unloading, processing operation and storage)

Permit Term (Describe requirements and cross-reference):

- PSD Approval # 94-01A: which requires the baghouses to be designed to achieve particulate emissions limit of 0.003 grains per actual cubic feet.
[Term IV.5.1B]

Compliance Methods for the Above (Description and citation):

Manufacturer specifications for baghouse bags. Development and maintenance of a preventative maintenance plan for each baghouse, in accordance with Term IV.5.3B. Performance of maintenance activities, in accordance with the plan. Log of maintenance performed, in accordance with Term IV.5.4B.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-6, EU-7 and EU-8 (coal truck unloading, processing operation and storage)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall visually inspect the exhaust gases from each baghouse stack when coal is being handled or crushed to look for visible emissions once a month for 1 minute and shall record the results of each observation.
If emissions in the exhaust gases are visible, the Permittee shall perform the following:
1) Inspect all process and/or control equipment that may affect visible emissions;
2) Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated;
3) Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and
4) If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions.
[Authority: COMAR 26.11.03.06C]
[Term IV.5.3A]

Compliance Methods for the Above (Description and citation):

Records of visible emissions observations, and any subsequent repairs, adjustments and Method 9 observations, in accordance with Term IV.5.4A.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-6, EU-7 and EU-8 (coal truck unloading, processing operation and storage)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed. [Authority: COMAR 26.11.03.06C.] [Term IV.5.3B]

Compliance Methods for the Above (Description and citation):

Maintenance of a preventative maintenance plan that describes the maintenance activity and time schedule for completing each activity. Log of maintenance performed on each baghouse in accordance with Term IV.5.4B.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-6, EU-7 and EU-8 (coal truck unloading, processing operation and storage)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain a record of the results of all visual emission observations [Authority: COMAR 26.11.03.06C]. [Term IV.5.4A]

Compliance Methods for the Above (Description and citation):

Records of visual emission observations are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-6, EU-7 and EU-8 (coal truck unloading, processing operation and storage)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. [Authority: COMAR 26.11.03.06C]. [Term IV.5.4B]

Compliance Methods for the Above (Description and citation):

Records of maintenance performed on each baghouse are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-6, EU-7 and EU-8 (coal truck unloading, processing operation and storage)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations" [Authority: COMAR 26.11.03.06C]. [Term IV.5.5A]

Compliance Methods for the Above (Description and citation):

No reportable incidents of visible emissions occurred.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-6, EU-7 and EU-8 (coal truck unloading, processing operation and storage)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall submit maintenance records when requested by the Department. [Authority: COMAR 26.11.03.06C]. [Term IV.5.5B]

Compliance Methods for the Above (Description and citation):

No request was made by the MDE to submit maintenance records.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-9, EU-10 and EU-11 (bed ash day bin, bed ash silo and fly ash silo)

Permit Term (Describe requirements and cross-reference):

- COMAR 26.11.06.02C (1), which limits the discharge of visible emissions from any installation other than water in an uncombined form, which is greater than 20% opacity, with the exception under COMAR 26.11.06.02C(2). (applies to baghouse exhaust) [Term IV.6.1A]

Compliance Methods for the Above (Description and citation):

Monthly monitoring of baghouse exhaust visible emissions, in accordance with Term IV.6.3A. Records of visible emissions observations, in accordance with Term IV.6.4A.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-9, EU-10 and EU-11 (bed ash day bin, bed ash silo and fly ash silo)

Permit Term (Describe requirements and cross-reference):

- PSD Approval # 94-01A, which requires the fabric filter baghouses to be designed to achieve a particulate emissions limit of 0.003 grains/actual cubic feet.

Note: Particulate Emissions from unconfined sources. See Table IV – 10 for requirements relating to fugitive emissions from the ash handling and load out operations.
[Term IV.6.1B]

Compliance Methods for the Above (Description and citation):

Manufacturer specifications for baghouse bags. Development and maintenance of a preventative maintenance plan for each baghouse in accordance with Term IV.6.3B. Performance of maintenance activities in accordance with the plan. Log of maintenance performed in accordance with Term IV.6.4B.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-9, EU-10 and EU-11 (bed ash day bin, bed ash silo and fly ash silo)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall visually inspect the exhaust gases from each baghouse stack when a bin/silo is being filled to look for visible emissions once a month for 1 minute and shall record the results of each observation.

If emissions in the exhaust gases are visible, the Permittee shall perform the following:

- 1) Inspect all process and/or control equipment that may affect visible emissions;
- 2) Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated;
- 3) Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and
- 4) If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions.

[Authority: COMAR 26.11.03.06C]
[Term IV.6.3A]

Compliance Methods for the Above (Description and citation):

Records of visible emissions observations, and any subsequent repairs, adjustments Method 9 observations, in accordance with Term IV.6.4A.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-9, EU-10 and EU-11 (bed ash day bin, bed ash silo and fly ash silo)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall develop and maintain a preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the timeframes established in the plan and shall maintain a log with records of the dates on which maintenance was performed. [Authority: COMAR 26.11.03.06C]
[Term IV.6.3B]

Compliance Methods for the Above (Description and citation):

Maintenance of preventative maintenance plan that describes the maintenance activity and time schedule for completing each activity. Records of maintenance performed on each baghouse, in accordance with Term IV.6.4B.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-9, EU-10 and EU-11 (bed ash day bin, bed ash silo and fly ash silo)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain a record of the results of all visual emission observations. [Authority: COMAR 26.11.03.06C].
[Term IV.6.4A]

Compliance Methods for the Above (Description and citation):

Records of visual emission observations are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-9, EU-10 and EU-11 (bed ash day bin, bed ash silo and fly ash silo)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain a log of maintenance performed on each baghouse. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. [Authority: COMAR 26.11.03.06C]. [Term IV.6.4B]

Compliance Methods for the Above (Description and citation):

Records of maintenance performed for each baghouse are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-9, EU-10 and EU-11 (bed ash day bin, bed ash silo and fly ash silo)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations" [Authority: COMAR 26.11.03.06C]. [Term IV.6.5A]

Compliance Methods for the Above (Description and citation):

No reportable incidents of visible emissions occurred.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-9, EU-10 and EU-11 (bed ash day bin, bed ash silo and fly ash silo)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall submit maintenance records when requested by the Department. [Authority: COMAR 26.11.03.06C]. [Term IV.6.5B]

Compliance Methods for the Above (Description and citation):

No request was made by the MDE to submit maintenance records.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-12 (emergency boiler feedwater pump)

Permit Term (Describe requirements and cross-reference):

- COMAR 26.11.09.05E (2) Emissions During Idle Mode. A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
 - COMAR 26.11.09.05E (3) Emissions During Operating Mode. A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.
 - COMAR 26.11.09.05E (4) - Exceptions:
 - (a) Section E (2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
 - (b) Section E (2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
 - (i) Engines that are idled continuously when not in service: 30 minutes;
 - (ii) All other engines: 15 minutes.
 - (c) Section E (2) and (3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics.
- [Term IV.7.1A]

Compliance Methods for the Above (Description and citation):

Maintenance of an operations manual and preventive maintenance plan, in accordance with Term IV.7.3A. Records of maintenance performed on the diesel engine pump, in accordance with Term IV.7.4A.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-12 (emergency boiler feedwater pump)

Permit Term (Describe requirements and cross-reference):

- PSD Approval No. 94-01A which requires the emergency boiler feed water pump to be designed to achieve a limit of 0.341 lb/MMBtu of heat input.
[Term IV.7.1B]

Compliance Methods for the Above (Description and citation):

Maintenance of an operations manual and preventive maintenance plan, in accordance with Term IV.7.3B. Records of maintenance performed on the diesel engine pump in accordance with Term IV.7.4B.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-12 (emergency boiler feedwater pump)

Permit Term (Describe requirements and cross-reference):

- PSD Approval # 94-01A, which requires the emergency boiler feed water pump to be designed to achieve a sulfur dioxide emission limit of 0.052lbs/MMBtu of heat input.
 - PSD Approval # 94-01A, which limits the maximum sulfur content of the fuel to 0.05% by weight.
- Note: The SO₂ limit of 0.052 lbs/MMBtu is equivalent to 0.05% by weight
[Term IV.7.1C]

Compliance Methods for the Above (Description and citation):

Records of fuel supplier certifications stating that the fuel is in compliance with this requirement, in accordance with Terms IV.7.3C and IV.7.4C.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-12 (emergency boiler feedwater pump)

Permit Term (Describe requirements and cross-reference):

- PSD Approval # 94-01A, which requires the emergency boiler feed water pump engine to be designed to achieve a [NOx] limit of 3.439 lb/MMBtu.
 - COMAR 26.11.09.08G, which requires a person who owns or operates fuel burning equipment with a capacity factor of 15 percent or less to:
 - (a) Provide certification of the capacity factor of the equipment to the Department in writing;
 - (b) For fuel-burning equipment that operates more 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
 - (c) Maintain the results of the combustion analysis at the site for at least five years and make these results available to the Department and EPA upon request;
 - (d) Require each operator of an installation except combustion turbine, to attend at least once every three years, operator training program on combustion optimization that are sponsored by the Department, U.S. EPA, or equipment vendors; and
 - (e) Maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request
 - COMAR 26.11.09.08K(3) which requires the Permittee to maintain annual fuel use records on site for at least five years and make records available to the Department upon request
- [Term IV.7.1D]

Compliance Methods for the Above (Description and citation):

Record of submission to the MDE of a certificate of the capacity factor of the emergency boiler feedwater pump engine is kept on-site. Combustion analysis has not been required because the emergency boiler feedwater pump has not operated more than 500 hours per year. Records of combustion optimization training attendance are kept on-site. Records of annual fuel use by the emergency boiler feedwater pump engine are kept on-site. Maintenance of an operations manual and preventive maintenance plan, in accordance with Term IV.7.3D. Records of maintenance performed on the diesel engine pump in accordance with Term IV.7.4D.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-12 (emergency boiler feedwater pump)

Permit Term (Describe requirements and cross-reference):

- PSD Approval # 94-01A, which requires the emergency boiler feed water pump engine to be designed to achieve emissions as follows:

CO: 0.902 lbs/MMBtu of heat input
VOC: 0.098 lbs/MMBtu of heat input

[Term IV.7.1E]

Compliance Methods for the Above (Description and citation):

Maintenance of an operations manual and preventive maintenance plan, in accordance with Term IV.7.3E. Records of maintenance performed on the diesel engine pump in accordance with Term IV.7.4E.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-12 (emergency boiler feedwater pump)

Permit Term (Describe requirements and cross-reference):

- The operation of the emergency boiler feed water pump during non –emergency operations is limited to one hour per day and 200 hours per 12 months (rolled monthly) [Authority: PSD Approval # 94-01A]. [Term IV.7.1F]

Compliance Methods for the Above (Description and citation):

Records of the hours of operation of the diesel engine pump, in accordance with Term IV.7.4F.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-12 (emergency boiler feedwater pump)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall properly operate and maintain the engine and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance. [Authority: COMAR 26.11.03.06] [Terms IV.7.3A and B]

Compliance Methods for the Above (Description and citation):

Maintenance of the operations manual and preventive maintenance plan for the diesel engine pump.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-12 (emergency boiler feedwater pump)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall obtain fuel suppliers' certification indicating that the oil complies with the limitation on sulfur content of the fuel [Authority: COMAR 26.11.03.06C].
[Term IV.7.3C]

Compliance Methods for the Above (Description and citation):

Records of fuel suppliers' certification, in accordance with Term IV.7.4C.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-12 (emergency boiler feedwater pump)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall properly operate and maintain the engine; and shall maintain an operations manual and preventive maintenance plan that relate to combustion performance. [Authority: COMAR 26.11.03.06]
[Terms IV.7.3D and E]

Compliance Methods for the Above (Description and citation):

Maintenance of the operations manual and preventive maintenance plan for the diesel engine pump.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-12 (emergency boiler feedwater pump)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain log of maintenance performed on the diesel engine that relates to combustion performance. [Authority: COMAR 26.11.03.06C]. [Terms IV.7.4A and B]

Compliance Methods for the Above (Description and citation):

Records of maintenance performed on the diesel engine pump are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-12 (emergency boiler feedwater pump)

Permit Term (Describe requirements and cross-reference):

- Maintain records of fuel suppliers' certification for 5 years [Authority: COMAR 26.11.03.06C]. [Term IV.7.4C]

Compliance Methods for the Above (Description and citation):

Records of fuel suppliers' certification are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-12 (emergency boiler feedwater pump)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain log of maintenance performed on the diesel engine that relates to combustion performance. [Authority: COMAR 26.11.03.06C]. [Terms IV.7.4D and E]

Compliance Methods for the Above (Description and citation):

Records of maintenance performed on the diesel engine pump are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-12 (emergency boiler feedwater pump)

Permit Term (Describe requirements and cross-reference):

- Maintain records of the hours of operation of the diesel engine for 5 years. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request. [Authority: PTC No. 001-4-0080 A]. [Term IV.7.4F]

Compliance Methods for the Above (Description and citation):

Records of the hours of operation of the diesel engine pump are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-12 (emergency boiler feedwater pump)

Permit Term (Describe requirements and cross-reference):

- Report incidents of visible emissions in accordance with condition 4 of Section III "Report of Excess Emissions and Deviation. [Authority: COMAR 26.11.03.06C]. [Term IV.7.5A]

Compliance Methods for the Above (Description and citation):

No reportable incidents of visible emissions occurred.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-17 and EU-18 (natural gas-fired space heaters in the boiler room)

Permit Term (Describe requirements and cross-reference):

- COMAR 26.11.09.08F(1), which requires the Permittee or operator of a space heater as defined in regulation .01B of this chapter to:
 - (a) Submit to the Department a list of each affected installation on the premises and the type of fuel used in each installation;
 - (b) Develop an operating and maintenance plan to minimize NOx emissions based on the recommendations of equipment vendors and other information including the source's operating and maintenance experience;
 - (c) Implement the operating and maintenance plans and maintain the plans at the premises for review upon request by the Department;
 - (d) Require installation operators to attend in-state operators training program once every three years on combustion optimization that are sponsored by the Department, U.S. EPA, or equipment vendors; and
 - (e) Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.

Note: COMAR 26.11.09.08 states that "for the purpose of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation."

- COMAR 26.11.09.08F(2), which requires the Permittee or operator who owns or operates an installation that no longer qualifies as a space heater to inform the Department not later than 60 days after the date when the fuel burning equipment did not qualify and shall meet the applicable fuel burning equipment RACT requirement in this regulation.
- COMAR 26.11.09.08K(3), which requires the Permittee to maintain annual fuel use records on site for at least five years and make records available to the Department upon request. [Term IV.8.1A]

Compliance Methods for the Above (Description and citation):

Record of submission to the MDE of affected installations and type of fuel used in each installation. Record of operating and maintenance plan to minimize NOx, in accordance with Terms IV.8.3A and IV.8.4A. Records of operator training program attendance, in accordance with Terms IV.8.4A. Records of annual fuel use by the space heaters, in accordance with Term IV.8.4A

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-17 and EU-18 (natural gas-fired space heaters in the boiler room)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall only burn natural gas in the space heaters unless the Permittee applies for and receives an approval or permit from the Department to burn an alternate fuel. [Authority: COMAR 26.11.09.04] [Term IV.8.1B]

Compliance Methods for the Above (Description and citation):

Records of fuel burned (natural gas) in the space heaters, in accordance with Term IV.8.4B.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-17 and EU-18 (natural gas-fired space heaters in the boiler room)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall develop and implement the operating and maintenance plan and maintain the plan at the premises for review upon request by the Department [Authority: COMAR 26.11.09.08F(1)(c)]. [Term IV.8.3A]

Compliance Methods for the Above (Description and citation):

Maintenance of an operating and maintenance plan for the space heaters, in accordance with Term IV.8.4A.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-17 and EU-18 (natural gas-fired space heaters in the boiler room)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall:
 - (a) Maintain the operating and maintenance plan at the premises for review by the Department upon request. [Authority: COMAR 26.11.09.08F(1)(c)]
 - (b) Maintain records of the quantity of fuel burned each month and calculations of heat input so as to determine whether the units no longer qualify as a "Space Heater" [Authority: COMAR 26.11.03.06C].
 - (c) Maintain records of the training program attendance for each operator at the site [Authority: COMAR 26.11.09.08F(1)(e)]
 - (d) Maintain annual fuel use records on site for at least five years and make records available to the Department upon request. [Authority COMAR 26.11.09.08K(3)]

[Term IV.8.4A]

Compliance Methods for the Above (Description and citation):

The following records are kept on-site:

- Operating and maintenance plan for the space heater.
- Records of quantity of fuel burned each month and calculations of heat input to the space heaters.
- Records of training program attendance
- Records of annual fuel use.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-17 and EU-18 (natural gas-fired space heaters in the boiler room)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain records of the type of fuel burned. [Authority: COMAR 26.11.02.19C(1)(c)].

[Term IV.8.4B]

Compliance Methods for the Above (Description and citation):

Record of each type of fuel burned in the space heaters is kept on-site.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-17 and EU-18 (natural gas-fired space heaters in the boiler room)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall:
 - (a) Inform the Department no later than 60 days after the date when the units no longer qualify as a space heater, and shall identify an alternative NOx RACT requirement under COMAR 26.11.09.08 with which the source will comply [Authority: COMAR 26.11.09.08F(2)].
 - (b) Submit a list of trained operators and training attendance records to the Department upon request. [Authority: COMAR 26.11.09.08F(1)(e)]
[Term IV.8.5A]

Compliance Methods for the Above (Description and citation):

There was no need to inform the MDE that the space heaters no longer qualify as a space heater. There was no request from MDE to submit a list of trained operators.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-17 and EU-18 (natural gas-fired space heaters in the boiler room)

Permit Term (Describe requirements and cross-reference):

- Submit records of fuel use as an attachment to the annual emissions certification. [Authority: COMAR 26.11.02.19C(2)].
[Term IV.8.5B]

Compliance Methods for the Above (Description and citation):

Records of the annual emissions certification to the MDE.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-19 (Coal Blending System)

Permit Term (Describe requirements and cross-reference):

- 40 CFR §60.254(b)(1) – Coal processing and conveying equipment, coal storage system, or coal transfer and loading system and open storage piles

"On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008 must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 10 percent opacity or greater"

- COMAR 26.11.06.02C(1), which limits the discharge of visible emissions from any installations, other than water in an uncombined form, which is greater than 20% opacity, with exception under COMAR 26.11.06.02C(1).

Note: The monitoring, record keeping, and reporting strategy to demonstrate compliance with the NSPS opacity standard will be used for the compliance demonstration of the COMAR opacity standard

[Term IV.9.1A]

Compliance Methods for the Above (Description and citation):

Opacity tests performed in accordance with Term IV.9.2A, and maintained records in accordance with Terms IV.9.4A and IV.9.4B

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-19 (Coal Blending System)

Permit Term (Describe requirements and cross-reference):

- 40 CFR §60.255(h) - The Permittee, Owner or Operator of each affected coal truck dump operation that commenced construction, reconstruction, or modification after April 28, 2008, must meet the requirements specified in paragraphs (h)(1) through (3) of this section.

[Term IV.9.1B]

Compliance Methods for the Above (Description and citation):

Opacity test performed in accordance with Terms IV.9.2B and IV.9.3B, and maintained records in accordance with Term IV.9.4B

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-19 (Coal Blending System)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall utilize water injection system or other necessary measures as frequently as necessary to prevent fugitive emissions and dust from becoming airborne in accordance with COMAR 26.11.06.03D.
[Term IV.9.1C]

Compliance Methods for the Above (Description and citation):

Utilized water injection system or other necessary measures as necessary as required and maintained records in accordance with Term IV.9.4C

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-19 (Coal Blending System)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall conduct the performance tests required in §60.8 using the methods identified in §60.257 to demonstrate compliance with the applicable emissions standards in this subpart as specified in paragraph (b) (2) of §60.255 [Authority: 40 CFR §60.255(b)].

As an alternative to meeting the requirements in paragraph (b)(2) of §60.255, the Permittee may elect to comply with the requirements in paragraph (f)(1) of §60.255 [Authority: 40 CFR §60.255(f)].
[Term IV.9.2A and B]

Compliance Methods for the Above (Description and citation):

Maintained records of opacity tests performed in accordance with Terms IV.9.4A and IV.9.4B

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-19 (Coal Blending System)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall visually inspect the exhaust gases from each baghouse stack when coal is being handled or crushed for visible emissions once a month for 1 minute and shall record the results of each observation.

If emissions in the exhaust gases are visible, the Permittee shall perform the following:

- (1) Inspect all process and/or control equipment that may affect visible emissions; (2) Perform all necessary repairs and/or adjustments to all processes and/or control equipment, within 48 hours, so that visible emissions in the exhaust gases are eliminated; (3) Document, in writing, the results of the inspections and the repairs and/or adjustments made to the processes and/or control equipment; and (4) If visible emissions have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily for an 18-minute period until corrective actions have eliminated the visible emissions. [Authority: COMAR 26.11.03.06C]. [Term IV.9.3A]

Compliance Methods for the Above (Description and citation):

Performed under Term IV.5.3A (for EU-7). Records of visible emissions observations in accordance with Term IV.9.4A

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-19 (Coal Blending System)

Permit Term (Describe requirements and cross-reference):

- (1) The Permittee shall conduct an initial performance test using Method 9 of Appendix A-4 of this part according to the requirements in paragraphs (h)(1)(i) and (ii). [Authority: 40 CFR §60.255(h)].
 - (i) The Permittee shall conduct opacity readings during the duration of three separate truck dump events. Each truck dump event commences when the truck bed begins to elevate and concludes when the truck bed returns to a horizontal position [Authority: 40 CFR §60.255(h)(1)(i)].
 - (ii) Compliance with the opacity limit is determined by averaging all 15second opacity readings made during the duration of three separate truck dump events [Authority: 40 CFR §60.255(h)(1)(i)].
- (2) The Permittee shall conduct monthly visual observations of all process and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible. [Authority: 40 CFR §60.255(h)(2)].
- (3) The Permittee shall conduct a Performance test using Method 9 of Appendix A-4 of this part at least once every 5 calendar years for each affected facility [Authority: 40 CFR §60.255(h)(3)]. [Term IV.9.3B]

Compliance Methods for the Above (Description and citation):

Records of required opacity tests and inspections in accordance with Term IV.9.4B

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-19 (Coal Blending System)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain in a logbook (written or electronic) on-site for at least 5 years and shall be made available to the Department upon request. The logbook shall record the following: (1) The manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer recommendation, if any, shall be noted. (2) The date and time of required periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions. Results from these actions shall be noted. (3) The amount and type of coal processed each calendar month. [Authority: 40 CFR §60.258(a)] and [Authority: COMAR 26.11.03.06C].
[Term IV.9.4A]

Compliance Methods for the Above (Description and citation):
Logbook maintained onsite and shall be made available to MDE upon request.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-19 (Coal Blending System)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain a record of the results of all visual emission observations and corrective actions taken to address exceedance including maintenance performed on each affected facility. The log shall be kept on site for at least 5 years and shall be made available to the Department upon request [Authority: COMAR 26.11.03.06C and 40 CFR §60.258(a)(2)].
[Term IV.9.4B]

Compliance Methods for the Above (Description and citation):
Results maintained onsite and shall be made available to MDE upon request

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-19 (Coal Blending System)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain a log of the use of water injection system or other measures to prevent fugitive dust from becoming airborne on site for at least 5 years and shall be made available to the Department upon request [Authority: COMAR 26.11.03.06C]. [Term IV.9.4C]

Compliance Methods for the Above (Description and citation):

Maintained onsite and shall be made available to MDE upon request in accordance with Term IV.9.5C

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-19 (Coal Blending System)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations" [Authority: COMAR 26.11.03.06C]. [Term IV.9.5A]

Compliance Methods for the Above (Description and citation):

No incidents of visible emissions to report

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-19 (Coal Blending System)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations" [Authority: COMAR 26.11.03.06C40 CFR §60.258(a)(2). [Term IV.9.5B]

Compliance Methods for the Above (Description and citation):

No incidents of visible emissions to report

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): EU-19 (Coal Blending System)

Permit Term (Describe requirements and cross-reference):

- The Permittee shall submit a log of the use of water injection system or other measures to prevent fugitive dust from becoming airborne upon request by the Department [Authority: COMAR 26.11.03.06C]. [Term IV.9.5C]

Compliance Methods for the Above (Description and citation):

Log shall be submitted to MDE upon request

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): Facility-wide fugitive particulate emission sources

Permit Term (Describe requirements and cross-reference):

- COMAR 26.11.06.03D "Particulate Matter from Materials Handling and Construction. A person may not cause or permit any material to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne."
[Term IV.10.1A]

Compliance Methods for the Above (Description and citation):

Maintenance of written plan that addresses the management program for controlling fugitive dust from storage piles, vehicular traffic at the site, and other sources, in accordance with Terms IV.10.3A and 10.4A.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): Facility-wide fugitive particulate emission sources

Permit Term (Describe requirements and cross-reference):

- PTC # 001-3-0127, 0136, & 0067A–The Permittee shall assure that no more than 203 trucks/day, comprised of coal, limestone, and CO₂, shall be permitted on-site for delivery.
[Term IV.10.1B]

Compliance Methods for the Above (Description and citation):

Daily counting and records of the number of trucks on-site for delivery each day, in accordance with Terms IV.10.3B and IV.10.4B.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): Facility-wide fugitive particulate emission sources

Permit Term (Describe requirements and cross-reference):

- The Permittee shall implement the facility's written plan that addresses the management program for controlling fugitive dust from storage piles, vehicular traffic at the site, and other sources. [Authority: COMAR 26.11.03.06C and PTC # 001-3-0127, 0136, & 0067 A – Condition C-4.].
[Term IV.10.3A]

Compliance Methods for the Above (Description and citation):

Internal verification that the facility's written plan for controlling dust from storage piles, vehicular traffic at the site, and other sources has been implemented.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): Facility-wide fugitive particulate emission sources

Permit Term (Describe requirements and cross-reference):

- The Permittee shall monitor and count the number of trucks on the site for delivery each day. [Authority: COMAR 26.11.03.06C].
[Term IV.10.3B]

Compliance Methods for the Above (Description and citation):

Records of truck counts on the site for delivery each day, in accordance with Term IV.10.4B.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): Facility-wide fugitive particulate emission sources

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain on site a written plan that addresses the management program for controlling fugitive dust from storage piles, vehicular traffic at the site, and other unconfined sources. [Authority: PTC # 01-3-0127, 0136, & 0067 N – condition C-4].

[Term IV.10.4A]

Compliance Methods for the Above (Description and citation):

Maintenance of written plan for controlling fugitive dust from storage piles, vehicular traffic at the site, and other sources.

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): Facility-wide fugitive particulate emission sources

Permit Term (Describe requirements and cross-reference):

- The Permittee shall maintain a record of the number of coal, limestone, and CO2 trucks on site for delivery each day. [Authority: COMAR 26.11.03.06C].

[Term IV.10.4B]

Compliance Methods for the Above (Description and citation):

Records of the number of trucks on-site each day are kept on-site.

Status (check one): Intermittent compliance Continuous compliance

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): Facility-wide fugitive particulate emission sources

Permit Term (Describe requirements and cross-reference):

- The Permittee shall submit the written plan that addresses the management program for controlling fugitive dust from storage piles, vehicular traffic at the site, and other unconfined sources upon request by the Department [Authority: COMAR 26.11.03.06C]. [Term IV.10.5A]

Compliance Methods for the Above (Description and citation):

No request was made by MDE

Status (check one): Intermittent compliance Continuous compliance

Emission Unit ID(s): Facility-wide fugitive particulate emission sources

Permit Term (Describe requirements and cross-reference):

- The Permittee shall submit, upon request by the Department, a record of the number of coal, limestone, and CO2 trucks on site for delivery each day [Authority: COMAR 26.11.03.06C]. [Term IV.10.5B]

Compliance Methods for the Above (Description and citation):

No request was made by MDE, but records are submitted with quarterly reports under Term IV.1.5A

Status (check one): Intermittent compliance Continuous compliance

C. DEVIATIONS FROM PERMIT TERMS AND CONDITIONS

Report all deviations from permit terms (whether reported previously or not) that occurred during the permit term. Cross-reference deviations already reported in the six-month report. Indicate whether each deviation is a possible exception to compliance. Start and end period of each deviation should be in mo/day/yr, hr:min format (24-hour clock). Also specify the date when the written deviation report was submitted (If written report required, but not submitted, leave the date field blank).

Permit Term for Which There was a Deviation: Term IV.1.1C2 (SO2 3-hr block average)	
Emission Units (Unit IDs):	EU-1
Deviation Start:	<u>04</u> / <u>14</u> / <u>2018</u> <u>06</u> : <u>00</u> End: <u>04</u> / <u>14</u> / <u>2018</u> <u>08</u> : <u>59</u>
Date Written Report Submitted:	<u>07</u> / <u>27</u> / <u>2018</u>
Probable Cause of Deviation:	Misunderstanding of the CEMS channels on console screen; ash control valve opened; and MinGen testing (Note: Any small operational changes that are made during periods of low MW load have greater effect)
Corrective Actions or Preventative Measures:	AES Warrior Run will work with the DAS contractor (ESC) to better understand the CEMS channels, and create training; and create a protocol for operating during periods of minimum generation

Permit Term for Which There was a Deviation: Term IV.1.1D2 (NOx 24-hr block average)	
Emission Units (Unit IDs):	EU-1
Deviation Start:	<u>04</u> / <u>29</u> / <u>2018</u> <u>00</u> : <u>00</u> End: <u>04</u> / <u>29</u> / <u>2018</u> <u>23</u> : <u>59</u>
Date Written Report Submitted:	<u>07</u> / <u>27</u> / <u>2018</u>
Probable Cause of Deviation:	During the outage, the coal feeders had been re-calibrated. While starting up, operators noticed that one of the feeders was experiencing what they believed to be belt slippage. The coal feeders are designed and programmed to compensate for each other when one malfunctions; Control Room operators were seeing this occur. When looking at the coal feeders they noticed the one in question was still feeding coal at a normal rate. After troubleshooting it was found that the tare weight setting had not been returned to normal after the calibration. The parameter was re-set and all feeders returned to normal coal feeding rates
Corrective Actions or Preventative Measures:	AES Warrior Run will ensure that all coal feeders are returned to normal settings after a calibration occurs

Permit Term for Which There was a Deviation: Term IV.1.3.3 (63.10010(f)(2)) for SO2

Emission Units (Unit IDs): EU-1

Deviation Start: 09 / 10 / 2018 14 : 00 End: 09 / 16 / 2018 16 : 59

Date Written Report Submitted: 10 / 25 / 2018

Probably Cause of Deviation: Only the low-level concentration of the high range of the dual-range SO2 analyzer failed the linearity test. A coincident cylinder gas audit passed. Failure of a linearity test is an extremely rare event. A careful examination of the analyzer and CEMS failed to identify a probable cause.

Corrective Actions or Preventative Measures: Recommended inspection and preventive maintenance of the analyzer was performed. A 40 CFR Part 75 quarterly linearity test was successfully completed on 11/5/19

Permit Term for Which There was a Deviation: Term IV.1.3.3 (63.10010(f)(2)) for SO2

Emission Units (Unit IDs): EU-1

Deviation Start: 11 / 02 / 2018 00 : 00 End: 11 / 05 / 2018 11 : 59

Date Written Report Submitted: 01 / 28 / 2019

Probably Cause of Deviation: Only the low-level concentration of the high range of the dual-range SO2 analyzer failed the linearity test. A coincident cylinder gas audit passed. Failure of a linearity test is an extremely rare event. A careful examination of the analyzer and CEMS failed to identify a probable cause.

Corrective Actions or Preventative Measures: Recommended inspection and preventive maintenance of the analyzer was performed. A 40 CFR Part 75 quarterly linearity test was successfully completed on 11/5/19

Permit Term for Which There was a Deviation:

Emission Units (Unit IDs):

Deviation Start: ____ / ____ / ____ : ____ End: ____ / ____ / ____ : ____

Date Written Report Submitted: ____ / ____ / ____

Probably Cause of Deviation:

Corrective Actions or
Preventative Measures:

Permit Term for Which There was a Deviation:

Emission Units (Unit IDs):

Deviation Start: ____ / ____ / ____ : ____ End: ____ / ____ / ____ : ____

Date Written Report Submitted: ____ / ____ / ____

Probably Cause of Deviation:

Corrective Actions or
Preventative Measures: