



PART 70 PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth herein.

Operating Permit Number: OP2010-126A
Expiration Date: December 6, 2015
Installation ID: 175-0001
Project Number: 2011-05-071

Installation Name and Address

AECI Thomas Hill Energy Center, Power Division
5693 Hwy F
Clifton Hill, MO 65244
Randolph County

Parent Company's Name and Address

Associated Electric Cooperative, Inc.
2814 S. Golden, P.O. Box 754
Springfield, MO 65801-0754

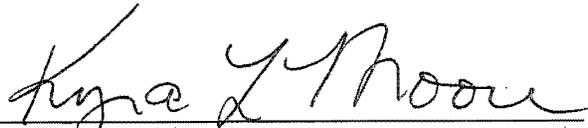
Installation Description:

AECI's Thomas Hill Energy Center is a power plant which converts the energy from coal and other fuels to electrical energy. The installation has coal unloading, conveying, stockpiles, and crushing equipment to supply the coal burning boilers. The main sources of emissions are boilers that primarily combust coal and secondarily combust fuel oil. The boilers produce steam that powers electrical generating equipment. Equipment for fly-ash loading, hauling, and disposing are also on site. The installation is a major source of Carbon Monoxide (CO), Greenhouse Gases (CO₂e), Nitrogen Oxides (NO_x), Condensable Particulate Matter (PM_{CON}), Filterable Particulate Matter ≤ Ten Microns (PM₁₀), Filterable Particulate Matter ≤ 2.5 Microns (PM_{2.5}), Sulfur Oxides (SO_x), Volatile Organic Compounds (VOCs), Hazardous Air Pollutants (HAPs), Hydrogen Chloride (7647-01-0), Hydrogen Fluoride (7664-39-3), and Formaldehyde (50-00-0).

This is an amended operating permit to incorporate Construction Permit 122010-011, issued December 17, 2010, and updates to conform with current regulations and Air Pollution Control Program policy; therefore, the expiration date has not changed.

OCT 03 2012

Effective Date


Director of Designee

Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

AECI's Thomas Hill Energy Center is a power plant which converts the energy from coal and other fuels to electrical energy. The installation has coal unloading, conveying, stockpiles, and crushing equipment to supply the coal burning boilers. The main sources of emissions are boilers that primarily combust coal and secondarily combust fuel oil. The boilers produce steam that powers electrical generating equipment. Equipment for fly-ash loading, hauling, and disposing are also on site. The installation is a major source of Carbon Monoxide (CO), Greenhouse Gases (CO_{2e}), Nitrogen Oxides (NO_x), Condensable Particulate Matter (PM CON), Filterable Particulate Matter ≤ Ten Microns (PM₁₀), Filterable Particulate Matter ≤ 2.5 Microns (PM_{2.5}), Sulfur Oxides (SO_x), Volatile Organic Compounds (VOCs), Hazardous Air Pollutants (HAPs), Hydrogen Chloride (7647-01-0), Hydrogen Fluoride (7664-39-3), and Formaldehyde (50-00-0).

Reported Air Pollutant Emissions, tons per year					
Pollutants	2010	2009	2008	2007	2006
Carbon Monoxide (CO)	4,449.15	4,578.06	4,486.18	4,213.93	4,965.02
Ammonia (NH ₃)	0.35	37.94	1.59	1.36	1.50
Nitrogen Oxides (NO _x)	7,744.79	4,088.02	12,117.61	15,380.41	16,083.57
Condensable Particulate Matter (PM CON)	391.21	62.88	-	-	-
Fil. Particulate Matter ≤ Ten Microns (PM ₁₀)	499.81	485.60	446.10	268.19	308.46
Fil. Particulate Matter ≤ 2.5 Microns (PM _{2.5})	408.30	393.19	438.74	16.82	74.69
Sulfur Oxides (SO _x)	17,068.60	16,628.60	15,099.61	15,198.48	18,429.57
Volatile Organic Compounds (VOC)	186.78	179.51	169.42	178.40	186.95
Hazardous Air Pollutants (HAPs)	126.51	133.28	127.32	144.09	141.05
Hydrogen Fluoride (7664-39-3)	113.77	124.76	116.75	126.68	-
Hydrogen Chloride (7647-01-0)	8.08	6.50	8.90	15.66	-
Methanol (67-56-1)	2.85	0.39	-	0.14	0.14
Manganese Compounds (20-12-2)	0.33	0.31	0.33	0.34	-
Chromium Compounds (20-06-4)	0.22	0.21	0.21	0.21	-
Nickel Compounds (20-14-4)	0.21	0.20	0.22	0.20	-
Mercury Compounds (20-13-3)	0.16	0.15	0.14	0.13	-
Benzene (71-43-2)	0.15	0.15	0.14	0.14	-
Dichloromethane (75-09-2)	0.14	0.14	0.13	0.13	-
Diocetyl Phthalate (117-81-7)	0.14	0.14	0.13	0.13	-
Phenol (108-95-2)	0.13	0.12	0.12	0.12	-
Acetaldehyde (75-07-0)	0.13	0.12	0.12	0.12	-
Formaldehyde (50-00-0)	0.10	-	-	-	-
Arsenic Compounds (20-01-9)	0.04	0.04	0.07	0.04	-
Vinyl Chloride (75-01-4)	0.03	0.03	0.03	0.03	-
Lead Compounds (20-11-1)	0.02	0.02	0.02	0.02	0.21

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation that emits air pollutants and that are identified as having unit-specific emission limitations.

Emission Unit	Description
EP01	Boiler 1
EP02	Boiler 2
EP03	Boiler 3
EP04	Auxiliary Boiler AB1
EP05	Auxiliary Boilers AB3A & AB3B
EP06F	Space Heater – Sample Building
EP06G	Space Heater – Unit 1 and 2 Crusher House
EP07A	Emergency Diesel Generator For Boilers 1 And 2
EP07B	Emergency Diesel Generator For Boiler 3
EP07C	Emergency Fire Pump Engine
EP08A	Coal Unloading
EP08B	Alternate Coal Unloading From Railcar Or Trucks
EP09A	Coal Conveying
EP09B	Coal Conveying
EP09C	Coal Conveying
EP09D	Coal Conveying
EP09E	Coal Conveying
EP09F	Coal Conveying
EP09G	Coal Conveying
EP09H	Coal Conveying
EP10A	Coal Crushing And Conditioning
EP11A	Fly Ash Loading To Tanker Trucks
EP11B	Fly Ash Loading (Alternate)
EP11C	Fly Ash Loading (Alternate)
FE1	Coal Pile Maintenance And Operations At The Installation
FE2	Fly Ash Hauling To Landfill
FE3	Fly Ash Unloading To Landfill
FE5	Coal Pile Management
FE6	Coal Pile Management
FE7	Coal Pile Management

EMISSION UNITS WITHOUT LIMITATIONS

The following list provides a description of the equipment that does not have unit specific limitations at the time of permit issuance.

Unit	Description
EP06A	0.99 MMBtu/hr Propane Space Heater – Unit 1 and 2 Intake Structure
EP06B	0.5 MMBtu/hr Propane Space Heater – Portable Unit
EP06C	1.2 MMBtu/hr Propane Space Heater – Transfer House #1
EP06D	1.2 MMBtu/hr Propane Space Heater – Transfer House #2
EP06E	1.2 MMBtu/hr Propane Space Heater – Transfer House #3
EP12	3,840 gallon Unleaded Gasoline Storage Tank
FE4	Service Air Deicing
IA-1	9,940 gallon Diesel Tank#101; 8,460 gallon Diesel Tank#102; 1,986 gallon Diesel Tank#103; 9,987 gallon Diesel Tank#104; 300,000 gallon Diesel Tank#105; 1,709 gallon Diesel Tank#106 for Emergency Generators; 117 gallon Diesel Tank#107 for Emergency Fire Pump
IA-2	992 gallon Gasoline Tank#201; 289 gallon Gasoline Tank#202
IA-3	6,000 gallon Turbine Oil Tank#301; 8,500 gallon Turbine Oil Tank#302; 14,350 gallon Clean Oil Tank#303; 13,800 gallon Dirty Oil Tank#304; 10,000 gallon New Oil Tank #305
IA-4	1,000 gallon Waste Oil Tank#401; 4,610 gallon Waste Oil Tank#402; 1,020 gallon Waste Oil Tank#403
IA-5	2 - 50% Concentrated Ethylene Glycol Storage Tanks
IA-6	3 - Hydrazine (Closed - Loop System, Remove Of Dissolved Oxygen From Water)
IA-7	Asbestos Abatement Activities
IA-8	2 – H ₂ SO ₄ Storage Tanks (Regenerating Demineralizing Beds For Steam Cycle Process)
IA-10	Transformers And Transformer Oil
IA-11	26 - Chlorine Storage Tanks (Biocide Control In Water Treatment)
IA-12	5 - Portable Parts Washers For Degreasing Metal Components
IA-13	Glycol Heater Vents
IA-14	Seal Oil Vacuum Pump Discharge Vents
IA-15	Soot Blowing Air Compressor Oil Tanks
IA-16	Acetylene Gas For Maintenance Activities
IA-17	2 - 50% Concentrated Sodium Hydroxide Storage Tanks (Chemical And Water Treatment)
IA-18	2 - Hydrate Lime For pH Control
IA-19	Ferric Sulfate Coagulant For Water Treatment
IA-20	Sodium Bicarbonate (Corrosion Control And Alkalinity Increases)
IA-21	Sodium Carbonate For Water Softening System
IA-22	3 - Hydrogen Gas Tanks For Generator Cooling
IA-23	4 - Ammonium Hydroxide Tanks (Water Treatment Process In Closed Loop System)
IA-24	Methanol (Service Air Line Moisture Purging And Freeze Prevention)
IA-25	4 – 30,000 gallon NH ₃ storage tanks for Units 1, 2, and 3 SCR Systems
IA-27	CyClean Coal Additive Operations

II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

PERMIT CONDITION PW001

10 CSR 10-6.060 Construction Permits Required
Construction Permit 0493-017A, Issued August 30, 1993

Operational Limitations:

1. Special Condition 1: All conveyors constructed after August 30, 1993, shall be totally enclosed. If dusting problems transpire during coal transfer operations, then baghouse/wet suppression systems will be re-evaluated for effectiveness and modified to eliminate excessive dusting.
2. Special Condition 2: Baghouse control shall be provided at all coal transfer points and storage vessels. Compliance with this condition may be obtained by ducting emissions from one or more transfer points or storage vessels to one or more baghouses.
3. Special Condition 3: Dustless unloaders shall be used to transfer the ash from the storage silos to the enclosed tank trucks. The ash referenced in this condition is that ash collected from the precipitator and the air heater hoppers.
4. The baghouses, drum filters, and filter receivers shall be operated and maintained in accordance with standard operating procedures developed according to best engineering practices. All control devices shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that employees may observe them with reasonable effort. Replacement filters for the baghouses sufficient to change one set of filters, shall be readily available at all times. The filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

Monitoring/Recordkeeping:

1. The permittee shall monitor and record the operating pressure drop across the control devices at least once each week that the unit is operating. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
2. The permittee shall maintain an operating and maintenance log for each control device using Attachment D or an equivalent form generated by the permittee. The record shall be maintained in hard copy or electronic form. The log(s) shall include the following:
 - a) Incidents of malfunction, with impact on emissions, duration of the event, probable cause of the event, and corrective actions; and
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
3. Records shall be retained in either hard copy or electronic form.
4. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
5. All records must be maintained for five years.

Reporting:

The permittee shall report any deviations from the operational limitation, monitoring/recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

PERMIT CONDITION PW002

10 CSR 10-6.060 Construction Permits Required
Construction Permit 0181-002, Issued December 29, 1980

Operational Limitation:

1. Special Condition: On-site haul roads shall be watered such that no violations of fugitive regulations occur as the result of vehicle movement on them.
2. For emission units with fugitive emissions, the permittee shall control the fugitive emissions from the haul roads by performing at least one of the following *Best Management Practices*:
 - a) Pavement of Road Surfaces –
 - i) The permittee may pave all or any portion of the haul roads with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve “Control of Fugitive Emissions” while the plant is operating.
 - ii) Maintenance and/or repair of the road surface will be conducted as necessary according to ASTM standards to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating. The permittee shall document which ASTM standards the installation is complying with.
 - iii) The permittee shall periodically water, wash and/or otherwise clean all of the paved portions of the haul road(s) as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
 - b) Usage of Chemical Dust Suppressants –
 - i) The permittee shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the unpaved portions of the haul roads. The suppressant will be applied in accordance with the manufacturer’s suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
 - ii) The permittee shall retain the manufacturer’s specifications for the chemical dust suppressant from which the application rate amount and frequency was taken.
 - iii) The permittee shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas.
 - c) Usage of Documented Watering –
 - i) The permittee shall control the fugitive emissions from all the unpaved portions of the haul roads at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 ft² of unpaved/untreated surface area of haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating. For example, the permittee shall calculate the total square feet of unpaved vehicle activity area requiring control on any particular day, divide that product by 1,000, and multiply the quotient by 100 gallons for that day.
 - ii) The permittee shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or

total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operation (e.g., meteorological situations, precipitation events, freezing, etc.)

- iii) Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating is sufficient reason to suspend water spray applications on the date of the meteorological precipitation occurrence.
- iv) Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The permittee shall record a brief description of such events in the same log as the documented watering.

Record Keeping:

1. The permittee shall maintain records of any *Best Management Practices* performed in accordance with this permit condition.
2. Records shall be retained in either hard copy or electronic form.
3. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
4. All records shall be retained for five years.

Reporting:

The permittee shall report any deviations from the operational limitation, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

PERMIT CONDITION 002	
10 CSR 10-6.060 Construction Permits Required Construction Permit 122009-002, Issued December 2, 2009	
Emission Unit	Description
EP01	Boiler 1
EP02	Boiler 2

Operational Limitations:

Special Condition 3: The permittee shall control metal HAP emissions from Boiler Units #1 & 2 using an electrostatic precipitator (ESP). The ESP shall be maintained in accordance with the manufacturer’s specifications. The permittee shall demonstrate proper operation of the ESP as required by 40 CFR Part 64 and the monitoring and recordkeeping provisions of the Compliance Assurance Monitoring (CAM) plan within Permit Condition 006.

Reporting:

The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

PERMIT CONDITION 003			
10 CSR 10-6.070 New Source Performance Regulations 40 CFR Part 60, Subpart D - Standards of Performance for Fossil-Fuel-Fired Steam Generators			
Emission Unit	Description	Construction Date	Maximum Hourly Design Rate (MMBtu/hr)
EP03	Boiler 3	1977	7000

Standards:

1. On and after the date on which the performance test required to be conducted by §60.8 is completed, the permittee shall not cause to be discharged into the atmosphere from any affected facility any gases that: [§60.42(a)]
 - a) Contain PM in excess of 0.10 lb/MMBtu derived from fossil fuel.
 - b) Exhibit greater than 20 percent opacity except for one six-minute period per hour of not more than 27 percent opacity. [§60.42(a)(2)]
2. Except as provided under §60.43(d), on and after the date on which the performance test required to be conducted by §60.8 is completed, the permittee shall not cause to be discharged into the atmosphere from any affected facility any gases that contain SO₂ in excess of: [§60.43(a)]
 - a) 0.80 lb/MMBtu derived from liquid fossil fuel. [§60.43(a)(1)]
 - b) 1.2 lb/MMBtu derived from solid fossil fuel. [§60.43(a)(2)]
3. When different fossil fuels are burned simultaneously in any combination, the applicable standard (in lb/MMBtu) shall be determined by proration using the following formula:

$$PS_{SO_2} = \frac{340y + 520z}{y + z} \times 0.0023260$$

Where:

PS_{SO_2} = Prorated standard for SO_2 when burning different fuels simultaneously, in lb/MMBtu heat input derived from all fossil fuels fired;

y = Percentage of total heat input derived from liquid fossil fuel; and

z = Percentage of total heat input derived from solid fossil fuel. [§60.43(b)]

4. Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels. [§60.43(c)]
5. Except as provided under §60.44(e), on and after the date on which the performance test required to be conducted by §60.8 is completed, the permittee shall not cause to be discharged into the atmosphere from any affected facility any gases that contain NO_x , expressed as NO_2 in excess of: [§60.44(a)]
 - a) 0.30 lb/MMBtu derived from liquid fossil fuel. [§60.44(a)(2)]
 - b) 0.70 lb/MMBtu heat input derived from solid fossil fuel (except lignite or a solid fossil fuel containing 25 percent, by weight, or more of coal refuse). [§60.44(a)(3)]
6. Except as provided under §60.44(c), when different fossil fuels are burned simultaneously in any combination, the applicable standard (in lb/MMBtu) is determined by proration using the following formula:

$$PS_{NO_x} = \frac{130y + 300z}{y + z} \times 0.0023260$$

Where:

PS_{NO_x} = Prorated standard for NO_x when burning different fuels simultaneously, in lb/MMBtu heat input derived from all fossil fuels fired;

y = Percentage of total heat input derived from liquid fossil fuel; and

z = Percentage of total heat input derived from solid fossil fuel (except lignite). [§60.44(b)]

7. When a fossil fuel containing at least 25 percent, by weight, of coal refuse is burned in combination with liquid or other solid fossil fuel, the standard for NO_x does not apply. [§60.44(c)]

Monitoring/Testing:

1. The permittee shall install, calibrate, maintain, and operate continuous opacity monitoring system (COMS) for measuring opacity and a CEMS for measuring SO_2 emissions, NO_x emissions, and either oxygen (O_2) or carbon dioxide (CO_2) except as provided in §60.45(b). [§60.45(a)]
2. A COMS for measuring the opacity of emissions is not required if the permittee installs, calibrates, operates, and maintains a particulate matter continuous parametric monitoring system (PM CPMS) according to the requirements specified in 40 CFR Part 63, Subpart UUUUU.
3. The permittee shall conduct calibration checks and performance evaluations. The permittee shall refer to 40 CFR 60.45 and 40 CFR 60.46 for calibration check and performance evaluation procedures.

Reporting:

1. Excess emission and monitoring system performance reports shall be submitted to the Administrator for each six-month period in the calendar year. All semi-annual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and Monitoring System Performance report shall include the information required in §60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows: [§60.45(g)]

- a) *Opacity*. Excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported. [§60.45(g)(1)]
 - b) *Sulfur dioxide*. Excess emissions for affected facilities are defined as: [§60.45(g)(2)]
 - i) For affected facilities electing not to comply with §60.43(d), any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of SO₂ as measured by a CEMS exceed the standard listed above. [§60.45(g)(2)(i)]
 - c) *Nitrogen oxides*. Excess emissions for affected facilities using a CEMS for measuring NO_x are defined as: [§60.45(g)(3)]
 - i) For affected facilities electing not to comply with §60.44(e), any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the standards listed above. [§60.45(g)(3)(i)]
2. Periods of startup, shutdown, and malfunction shall be reported according to the requirements of 10 CSR 10-6.050 *Start-Up, Shutdown, and Malfunction Conditions*.
 3. The permittee shall report any deviations from the standards, monitoring/testing, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

PERMIT CONDITION 004			
10 CSR 10-6.070 New Source Performance Regulations			
40 CFR Part 60, Subpart Y Standards of Performance for Coal Preparation Plants			
Emission Unit	Description	Construction Date	Maximum Hourly Design Rate (tons per hour)
EP09A	Coal Conveying	1964 and 1966	350
EP09B	Coal Conveying	1992	4000
EP09C	Coal Conveying	1978 and 1972	1200
EP09D	Coal Conveying	1992	4000
EP09E	Coal Conveying	1978	1600
EP09F	Coal Conveying	1978	2300
EP09G	Coal Conveying	1992	4000
EP09H	Coal Conveying	1992	4000
EP10A	Coal Crushing And Conditioning	1993	700

Standards:

On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, the permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified on or before April 28, 2008, gases which exhibit 20 percent opacity or greater. [§60.254(a)]

Compliance Requirements:

For each affected facility that commenced construction, reconstruction, or modification on or before April 28, 2008, the permittee shall conduct all performance tests required by §60.8 to demonstrate compliance with the applicable emission standards using the methods identified in §60.257. [§60.255(a)]

Test Methods/Procedures:

1. The permittee shall determine compliance with the applicable opacity standards as specified in §60.257(a)(1) through (3) and additionally as follows: [§60.257(a)]
 - a) The permittee shall conduct opacity readings on these emission units using U.S. EPA Test Method 22-like procedures. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible are observed using these procedures, then no further observations would be required. For emission units with visible emissions, the source representative shall conduct a Method 9 observation.
 - b) The following monitoring schedule must be maintained:
 - i) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then
 - ii) Observations shall be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then
 - iii) Observations shall be made once per month. If a violation is noted, monitoring reverts to weekly.
 - c) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.
 - d) A Method 9 observation shall be conducted at least once every five years.

Recordkeeping:

1. The permittee shall maintain records of any equipment malfunctions, using Attachment D or an equivalent form generated by the permittee.
2. The permittee shall maintain records of any U.S. EPA Test Method 22-like and/or Method 9 opacity tests performed in accordance with this permit condition.
3. The permittee shall retain each record in either hard copy or electronic form.
4. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
5. All records must be maintained for five years.

Reporting:

1. For the purpose of reports required under Section 60.7(c), the permittee shall report semi-annually periods of excess emissions as follow: [§60.258(b)]
 - a) All six-minute average opacities that exceed the applicable standard. [§60.258(b)(3)]
2. The permittee shall report any deviations from the standards, compliance requirements, continuous monitoring requirements, test methods/procedures, and reporting/recordkeeping requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

PERMIT CONDITION 005					
10 CSR 10-6.405 Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating					
Emission Unit	Description	Construction Date	Maximum Hourly Design Rate (MMBtu/hr)	Fuel	Stack #
EP04	Auxiliary Boiler AB1	1966	12.5	Fuel Oil #2	4
EP05	Auxiliary Boilers AB3A & AB3B	1981	155.6 each		5
EP06F	Space Heater – Sample Building	1996	2.4		Fugitive
EP06G	Space Heater – Unit 1 and 2 Crusher House		2.4		

Emission Limitations:

1. The permittee shall not emit particulate matter in excess of 0.18 lb/MMBtu of heat input from EP04.
2. The permittee shall not emit particulate matter in excess of 0.10 lb/MMBtu of heat input from EP05, EP06F, and EP06G.

Operational Limitation:

The permittee shall maintain and operate the equipment according to the manufacturer’s specifications and recommendations.

Recordkeeping:

1. Attachment H demonstrates the facility’s compliance with this regulation and should be kept on site at all times.
2. All inspections, corrective actions, and instrument calibrations shall be recorded using Attachment D or an equivalent form generated by the permittee.
3. Records may be kept in either written or electronic form.
4. These records shall be made available immediately for inspection to the Department of Natural Resources’ personnel upon request.
5. All records must be maintained for five years.

Reporting:

1. The permittee shall notify the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, at least ten days prior to any maintenance, start-up, or shutdown activity, which is expected to cause an excess release of emissions that exceeds one hour. If notification cannot be given ten days prior to any maintenance, start-up, or shutdown activity, which is expected to cause an excess release of emissions that exceeds one hour, notification shall be given as soon as practicable prior to the maintenance, start-up, or shutdown activity. If prior notification is not given for any maintenance, start-up, or shutdown activity which resulted in an excess release of emissions that exceeded one hour, notification shall be given within two business days of the release. Any other condition that results in non-compliance with the permit terms stated in this section shall be reported within ten days of the permittee becoming aware of the condition.
2. The permittee shall report any deviations from the emission limitations, operational limitation, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

PERMIT CONDITION 006

10 CSR 10-6.405 Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating
 10 CSR 10-6.070 New Source Performance Regulations
 40 CFR Part 60, Subpart D - Standards of Performance for Fossil-Fuel-Fired Steam Generators
 40 CFR Part 64 Compliance Assurance Monitoring

Emission Unit	Description	Construction Date	Control Device	Fuel	Stack #
EP01	1882 MMBtu/hr Boiler 1	1966	CD01 ESP	Subbituminous /Bituminous Coal or Fuel Oil #2	1
EP02	2970 MMBtu/hr Boiler 2	1969	CD02 ESP		2
EP03	7000 MMBtu/hr Boiler 3	1977	CD03 ESP		3

Emission Limitations:

1. The permittee shall not emit particulate matter in excess of 0.18 lb/MMBtu of heat input from EP01 Boiler 1 and EP02 Boiler 2. [10 CSR 10-6.405(3)(D)]
 - a) Emissions in excess of the level of 0.18 lb/MMBtu of heat input during periods of start-up, shutdown, and malfunction may be excused under 10 CSR 10-6.050, *Start-up, Shutdown and Malfunction Conditions*, provided the permittee has made this assertion to the Missouri Department of Natural Resources’ Air Pollution Control Program in accordance with that rule and these agencies agree with that assertion.
2. On and after the date on which the performance test required to be conducted by §60.8 is completed, the permittee shall not cause to be discharged into the atmosphere from EP03 Boiler 3 any gases that: [§60.42(a)]
 - a) Contain PM in excess of 0.10 lb/MMBtu heat input derived from fossil fuel. [§60.42(a)(1)]
 - b) Emissions in excess of the level of 0.10 lb/MMBtu of heat input during periods of start-up, shutdown, and malfunction may be excused under 10 CSR 10-6.050, *Start-up, Shutdown and Malfunction Conditions*, provided the permittee has made this assertion to the Missouri Department of Natural Resources’ Air Pollution Control Program in accordance with that rule and these agencies agree with that assertion.

Operational Limitation:

The permittee shall control particulate emissions from EP01, EP02, and EP03 Boilers using electrostatic precipitators (ESPs).

Monitoring:

1. The permittee shall install, certify, operate and maintain a certified Continuous Opacity Monitoring System (COMS) with an automated data acquisition and handling system for measuring and recording the opacity of emissions (in percent opacity) discharged to the atmosphere in order to provide a reasonable assurance of the performance of the electrostatic precipitators (ESP). Previously installed and certified monitoring systems that conform to provisions of the Performance Specification for COMS meet the monitoring requirements.
2. The performance requirements for the COMS and an excursion with its associated averaging time for each emission unit shall be as specified in the following table:

Associated Electric Cooperative, Inc. - CAM Monitoring Approach for Boilers #1, #2 and #3	
Particulate Matter (PM) Compliance Indicator	
Indicator	Opacity
Measurement Approach	Continuous Opacity Monitoring System (COMS)
Indicator Range	<p>Based on recent stack test data submitted by the Permittee, the baseline 1-hr avg. opacity for Unit 1, 2, and 3 is in the range of 11%, 7%, and 16%, respectively.</p> <p>The excursion level for Unit 1, 2, and 3 is defined as a 1-hr avg. opacity greater than 23%, 29%, and 22%, respectively. Excursions trigger an inspection, corrective action, and a reporting requirement.</p> <p>Based on the most recent stack test data submitted by the permittee, there will be credible evidence of a PM exceedance if the 3-hr block avg. opacity for Units 1, 2, and 3 exceeds 25%, 33%, and 36%, respectively.</p>
Performance Criteria	
Data Representativeness	Each boiler discharges to a dedicated stack with no bypass capabilities. Each stack is equipped with a COMS located downstream of the ESP that complies with the applicable version of 40 CFR Part 60, Appendix B, Performance Specification 1 (PS-1).
Verification of Operational Status	Not applicable since the selected monitoring approach utilizes existing COMS that were initially installed and evaluated per the applicable version of PS-1.
QA/QC Practices and Criteria	Perform a daily 0 and calibration drift check, periodic cleaning of optical surfaces and other periodic QA/QC checks as specified in applicable version of PS-1.
Monitoring Frequency	Continuous [i.e., the COMS is to complete a min. of one cycle (i.e., sampling, analyzing, and data recording) for each successive 10-second period].
Data Collection Procedure	
Averaging Period¹	The data acquisition system is to reduce the 10-second data points to 6-minute, 1-hour, and 3-hour block averages.
Reporting	Summary information on the number, duration, and cause for any excursions and COMS downtime will be reported on a semi-annual basis.

¹A valid averaging period shall not include instances of COMS quality assurance maintenance/calibration or system malfunction.

3. Proper maintenance. At all times, the permittee shall maintain the monitoring equipment, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. [§64.7(b)]
4. Continued operation. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions units are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [§64.7(c)]
5. Response to excursions or exceedances: [§64.7(d)]

- a) Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. [§64.7(d)(1)]
- b) Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process. [§64.7(d)(2)]
6. Documentation of need for improved monitoring. After approval of monitoring under this part, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the Part 70 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [§64.7(e)]

Quality improvement plan (QIP):

1. The Air Pollution Control Program may require the permittee to develop and implement a QIP if either boiler has accumulated excursions exceeding five percent duration of the operating time during the reporting period.
2. The permittee shall refer to §64.8(b), (c), (d), and (e) for specific QIP requirements.

Recordkeeping:

1. The permittee shall submit monitoring reports to the permitting authority in accordance with §70.6(a)(3)(iii). [§64.9(a)(1)]
2. A report for monitoring under this part shall include, at a minimum, the information required under §70.6(a)(3)(iii) and the following information, as applicable: [§64.9(a)(2)]
 - a) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken; [§64.9(a)(2)(i)]
 - b) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and [§64.9(a)(2)(ii)]
 - c) A description of the actions taken to implement a QIP during the reporting period as specified in §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. [§64.9(a)(2)(iii)]

3. Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [§64.9(b)(2)]
4. All records shall be kept for no less than five years and be made available immediately to any Missouri Department of Natural Resources’ personnel upon request.

Reporting:

1. The permittee shall comply with the recordkeeping requirements specified in §70.6(a)(3)(ii). The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). [§64.9(b)(1)]
2. The permittee shall notify the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, at least ten days prior to any maintenance, start-up, or shutdown activity, which is expected to cause an excess release of emissions that exceeds one hour. If notification cannot be given ten days prior to any maintenance, start-up, or shutdown activity, which is expected to cause an excess release of emissions that exceeds one hour, notification shall be given as soon as practicable prior to the maintenance, start-up, or shutdown activity. If prior notification is not given for any maintenance, start-up, or shutdown activity which resulted in an excess release of emissions that exceeded one hour, notification shall be given within two business days of the release. Any other condition that results in non-compliance with the permit terms stated in this section shall be reported within ten days of the permittee becoming aware of the condition.
3. The permittee shall report any deviations from the emission limitations, operational limitation, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

PERMIT CONDITION 007		
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations		
40 CFR Part 63, Subpart UUUUU – National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units		
Emission Unit	Description	Stack #
EP01	Boiler 1	1
EP02	Boiler 2	2
EP03	Boiler 3	3

Applicability:

EP01 Boiler 1, EP02 Boiler 2, and EP03 Boiler 3 meet the definition of a coal-fired electric utility steam generating unit (EGU) within §63.10042. The boilers were constructed in 1966, 1969, and 1977, respectively, classifying them as existing coal-fired EGU and affected sources per §63.9982(a)(1). The boilers combust coal with a heat content in excess of 8,300 Btu/lb meeting the subcategory of non-low rank virgin coal in §63.9990(a)(1).

Compliance Dates:

1. The permittee shall comply with 40 CFR Part 63, Subpart UUUUU by no later than April 16, 2015. [§63.9984(b)]

2. The permittee may apply for an extension allowing up to one additional year to comply with the standards. [CAA §112(i)(3)(B)]
3. The permittee shall meet the notification requirements in §63.10030 according to the schedule in §63.10030 and in 40 CFR Part 63, Subpart A. Some of the notifications must be submitted before the permittee is required to comply with the emission limits and work practice standards. [§63.9984(c)]
4. The permittee shall demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than 180 days after April 16, 2015. [§63.9984(f)]

Emission Limitations and Work Practice Standards:

1. The permittee shall meet the following requirements at all times: [§63.9991(a)]
 - a) The permittee shall meet each emission limit and work practice standard in Tables 2 and 3 of 40 CFR Part 63, Subpart UUUUU that applies, except as provided under §63.10009. [§63.9991(a)(1)]
 - b) The permittee shall meet each operating limit in Table 4 of 40 CFR Part 63, Subpart UUUUU that applies. [§63.9991(a)(2)]
2. As provided in §63.6(g), the Administrator may approve use of an alternative to the work practice standards. [§63.9991(b)]
3. The permittee may use the alternate SO₂ limit in Table 2 of 40 CFR Part 63, Subpart UUUUU only if the EGU: [§63.9991(c)]
 - a) Has a system using wet or dry flue gas desulfurization technology and SO₂ continuous emissions monitoring system (CEMS) installed on the unit; and [§63.9991(c)(1)]
 - b) At all times, the permittee operates the wet or dry flue gas desulfurization technology installed on the unit consistent with §63.10000(b). [§63.9991(c)(2)]

40 CFR Part 63, Subpart UUUUU Table 2 - Emission Limits for Existing EGUs

[As stated in § 63.9991, the permittee shall comply with the following applicable emission limits]¹

Pollutants (a, b, and c)		Emission Limit
a.	Filterable particulate matter (PM)	0.030 lb/MMBtu or 0.30 lb/MWh ²
	OR Total non-Hg HAP metals	0.000050 lb/MMBtu or 0.50 lb/GWh
	OR Individual HAP metals:	Antimony (Sb)
		Arsenic (As)
		Beryllium (Be)
		Cadmium (Cd)
		Chromium (Cr)
		Cobalt (Co)
		Lead (Pb)
		Manganese (Mn)
		Nickel (Ni)
		Selenium (Se)
	AND b. Hydrogen Chloride (HCl)	0.0020 lb/MMBtu or 0.020 lb/MWh
	OR Sulfur Dioxide (SO ₂) ⁴	0.20 lb/MMBtu or 1.5 lb/MWh
	AND c. Mercury (Hg)	1.2 lb/TBtu or 0.013 lb/GWh

¹For LEE emissions testing for total PM, total HAP metals, individual HAP metals, and HCl, the required minimum sampling volume shall be increased nominally by a factor of two.

²Gross electric output.

³Incorporated by reference, see §63.14.

⁴The permittee may not use the alternate SO₂ limit if the EGU does not have some form of FGD system and SO₂ CEMS installed.

40 CFR Part 63, Subpart UUUUU Table 3 – Work Practice Standards

[As stated in § 63.9991, the permittee shall comply with the following applicable work practice standards]

EGU	Work Practice Standards
Existing EGU	Conduct a tune-up of the EGU burner and combustion controls at least each 36 calendar months, or 48 calendar months if neural network combustion optimization software is employed, as specified in §63.10021(e).
Coal-fired EGUs during startup	The permittee shall 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, the permittee shall use clean fuels, either natural gas or distillate oil or a combination of clean fuels for ignition. Once the permittee converts to firing coal, the permittee shall engage all of the applicable control technologies except dry scrubber and SCR. The permittee shall start the dry scrubber and SCR systems, if present, appropriately to comply with relevant standards applicable during normal operation. The permittee shall comply with all applicable emissions limits at all times except for periods that meet the definitions of startup and shutdown. The permittee shall retain records during periods of startup. The permittee shall provide reports concerning activities and periods of startup, as specified in §63.10011(g) and § 63.10021(h) and (i).
Coal-fired EGUs during shutdown	The permittee shall operate all CMS during shutdown. Shutdown means the cessation of operation of a boiler for any purpose. Shutdown begins either when none 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) or at the point of no fuel being fired in the boiler. Shutdown ends when there is both no electricity being generated and no fuel being fired in the boiler. During shutdown, the permittee shall operate all applicable control technologies while firing coal. The permittee shall comply with all applicable emissions limits at all times except for periods that meet the definitions of startup and shutdown. The permittee shall retain records during periods of startup. The permittee shall provide reports concerning activities and periods of startup, as specified in § 63.10011(g) and § 63.10021(h) and (i).

40 CFR Part 63, Subpart UUUUU Table 4 - Operating Limits for Existing EGUs

[As stated in § 63.9991, the permittee shall comply with the following applicable operating limits]

Method of Compliance	Operating Limits
PM CPMS	Maintain the 30-boiler operating day rolling average PM CPMS output at or below the highest 1-hour average measured during the most recent performance test demonstrating compliance with the filterable PM, total non-mercury HAP metals, individual non-mercury HAP metals emissions limitation(s).

General Requirements:

1. The permittee shall be in compliance with the emission limits and operating limits. These limits apply at all times except during periods of startup and shutdown; however, for coal-fired EGUs, the permittee is required to meet the work practice requirements in Table 3 of 40 CFR Part 63, Subpart UUUUU during periods of startup or shutdown. [§63.10000(a)]
2. At all times the permittee shall 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. [§63.10000(b)]
3. Initial performance testing is required for all pollutants, to demonstrate compliance with the applicable emission limits. [§63.10000(c)(1)]
 - a) The permittee 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 the following exception: [§63.10000(c)(1)(i)]
 - i) The permittee may not pursue the LEE option if the coal-fired EGU is equipped with an acid gas scrubber and has a main stack and bypass stack exhaust configuration, and [§63.10000(c)(1)(i)(A)]
 - b) For a qualifying LEE for Hg emissions limits, the permittee shall conduct a 30-day performance test using Method 30B at least once every 12 calendar months to demonstrate continued LEE status. [§63.10000(c)(1)(ii)]
 - c) For a qualifying LEE of any other applicable emissions limits, the permittee shall conduct a performance test at least once every 36 calendar months to demonstrate continued LEE status. [§63.10000(c)(1)(iii)]
 - d) If the coal-fired EGU does not qualify as a LEE for total non-mercury HAP metals, individual non-mercury HAP metals, or filterable particulate matter (PM), the permittee shall demonstrate compliance through an initial performance test and the permittee shall monitor continuous performance through either use of a particulate matter continuous parametric monitoring system (PM CPMS), a PM CEMS, or compliance performance testing repeated quarterly. [§63.10000(c)(1)(iv)]
 - i) If the permittee elects to use PM CPMS, the permittee will establish a site-specific operating limit corresponding to the results of the performance test demonstrating compliance with the pollutant with which the permittee chooses to comply: total non-mercury HAP metals, individual non-mercury HAP metals or filterable PM. The permittee will use the PM CPMS to demonstrate continuous compliance with this operating limit. If the permittee elects to use a PM CPMS, the permittee shall repeat the performance test annually for the selected pollutant limit and reassess and adjust the site-specific operating limit in accordance with the results of the performance test. [§63.10000(c)(1)(iv)(A)]
 - ii) The permittee may also opt to install and operate a PM CEMS certified in accordance with Performance Specification 11 and Procedure 2 of 40 CFR Part 60, Appendices B and F, respectively, in accordance with §63.10010(i). [§63.10000(c)(1)(iv)(B)]
 - e) If the coal-fired EGU does not qualify as a LEE for HCl, the permittee may demonstrate initial and continuous compliance through use of an HCl CEMS, installed and operated in accordance with Appendix B of 40 CFR Part 63, Subpart UUUUU. As an alternative to HCl CEMS, the permittee may demonstrate initial and continuous compliance by conducting an initial and periodic quarterly performance stack test for HCl. If the EGU uses wet or dry flue gas desulfurization technology (this includes limestone injection into a fluidized bed combustion unit), the permittee may apply a second alternative to HCl CEMS by installing and operating a SO₂ CEMS in accordance with 40 CFR Part 75 to demonstrate compliance with the applicable SO₂ emissions limit. [§63.10000(c)(1)(v)]
 - f) If the coal-fired EGU does not qualify as a LEE for Hg, the permittee shall demonstrate initial and continuous compliance through use of a Hg CEMS or a sorbent trap monitoring system, in accordance with Appendix A of 40 CFR Part 63, Subpart UUUUU. [§63.10000(c)(1)(vi)]
 4. If the permittee demonstrates compliance with any applicable emissions limit through use of a continuous monitoring system (CMS), where a CMS includes a continuous parameter monitoring

system (CPMS) as well as a continuous emissions monitoring system (CEMS), the permittee shall develop a site-specific monitoring plan and submit this site-specific monitoring plan, if requested, at least 60 days before the initial performance evaluation (where applicable) of the CMS. This requirement also applies if the permittee petitions the Administrator for alternative monitoring parameters under §63.8(f). This requirement to develop and submit a site-specific monitoring plan does not apply to affected sources with existing monitoring plans that apply to CEMS and CPMS prepared under Appendix B to 40 CFR Part 60 or 75, and that meet the requirements of §63.10010. Using the process described in §63.8(f)(4), the permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified and, if approved, include those in the site-specific monitoring plan. The monitoring plan shall address all of the following provisions: [§63.10000(d)(1)]

- a) The site-specific monitoring plan shall include the information specified in §63.10000(d)(5)(i) through (vii). Alternatively, the requirements of §63.10000(d)(5)(i) through (vii) are considered to be met for a particular CMS or sorbent trap monitoring system if: [§63.10000(d)(2)]
 - i) The CMS or sorbent trap monitoring system is installed, certified, maintained, operated, and quality-assured either according to 40 CFR Part 75, or Appendix A or B of 40 CFR Part 63, Subpart UUUUU; and [§63.10000(d)(2)(i)]
 - ii) The recordkeeping and reporting requirements of 40 CFR Part 75, or Appendix A or B of 40 CFR Part 63, Subpart UUUUU, that pertain to the CMS are met. [§63.10000(d)(2)(ii)]
- b) If requested by the Administrator, the permittee shall submit the monitoring plan (or relevant portion of the plan) at least 60 days before the initial performance evaluation of a particular CMS, except where the CMS has already undergone a performance evaluation that meets the requirements of §63.10010 (e.g., if the CMS was previously certified under another program). [§63.10000(d)(3)]
- c) The permittee shall operate and maintain the CMS according to the site-specific monitoring plan. [§63.10000(d)(4)]
- d) The provisions of the site-specific monitoring plan shall address the following items: [§63.10000(d)(5)]
 - i) Installation of the CEMS or sorbent trap monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device). See §63.10010(a) for further details. For PM CPMS installations, follow the procedures in §63.10010(h). [§63.10000(d)(5)(i)]
 - ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems. [§63.10000(d)(5)(ii)]
 - iii) Schedule for conducting initial and periodic performance evaluations. [§63.10000(d)(5)(iii)]
 - iv) Performance evaluation procedures and acceptance criteria (e.g., calibrations), including the quality control program in accordance with the general requirements of §63.8(d). [§63.10000(d)(5)(iv)]
 - v) On-going operation and maintenance procedures, in accordance with the general requirements of §63.8(c)(1)(ii), (3), and (4)(ii). [§63.10000(d)(5)(v)]
 - vi) Conditions that define a CMS that is out of control consistent with §63.8(c)(7)(i) and for responding to out of control periods consistent with §63.8(c)(7)(ii) and (8). [§63.10000(d)(5)(vi)]

- vii) On-going recordkeeping and reporting procedures, in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i), or as specifically required. [§63.10000(d)(5)(vii)]
5. As part of the demonstration of continuous compliance, the permittee shall perform periodic tune-ups of the EGU(s), according to §63.10021(e). [§63.10000(e)]
 6. The permittee is subject to the requirements for at least six months following the last date the emission unit met the definition of an EGU (e.g., six months after a cogeneration unit provided more than one third of its potential electrical output capacity and more than 25 MW electrical output to any power distribution system for sale). The permittee may opt to remain subject to the provisions of 40 CFR Part 63, Subpart UUUUU beyond six months after the last date the emission unit met the definition of an EGU. [§63.10000(f)]
 7. If the emission unit no longer meets the definition of an EGU the permittee shall be in compliance with any newly applicable standards on the date the permittee is no longer subject. The date the permittee is no longer subject to 40 CFR Part 63, Subpart UUUUU is a date selected by the permittee, that shall be at least six months from the date that the emission unit last met the definition of an EGU. The permittee shall remain in compliance with 40 CFR Part 63, Subpart UUUUU until the date the permittee selects to cease complying. [§63.10000(g)]
 8. If it has been at least six months since the emission unit was operated in a manner that caused the emission unit to meet the definition of an EGU, the permittee may, consistent with §63.10000(g), select the date on which the EGU will no longer be subject. The permittee shall be in compliance with any newly applicable Section 112 or 129 standards on the date the permittee selected. [§63.10000(i)(1)]
 9. The permittee shall provide 30 days prior notice of the date the EGU will cease complying. The notification shall identify: [§63.10000(i)(2)]
 - a) The name of the owner or operator of the EGU(s), the location of the facility, the EGU(s) that will cease complying, and the date of the notice; [§63.10000(i)(2)(i)]
 - b) The currently applicable subcategory, and any 40 CFR Part 60, 62, or 63 subpart and subcategory that will be applicable after the permittee ceases complying; [§63.10000(i)(2)(ii)]
 - c) The date on which the permittee became subject; [§63.10000(i)(2)(iii)]
 - d) The date upon which the permittee will cease complying, consistent with §63.10000(g). [§63.10000(i)(2)(iv)]
 10. 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 the EGU to meet the definition of an EGU shall be installed and operational as of the date the source ceases to be or becomes subject. [§63.10000(j)]
 11. 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 the EGU to meet the definition of an EGU shall be installed and operational as of the date the source ceases to be or becomes subject. All calibration and drift checks shall be performed as of the date the source ceases to be or becomes subject. The permittee shall also comply with the provisions of §§63.10010, 63.10020, and 63.10021. Relative accuracy tests shall 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. [§63.10000(k)]

Affirmative Defense:

The permittee shall refer to §63.10001 for 40 CFR Part 63, Subpart UUUUU affirmative defense requirements.

Initial Compliance:

1. *General requirements.* For each EGU, the permittee shall demonstrate initial compliance with each applicable emissions limit in Table 2 of 40 CFR Part 63, Subpart UUUUU through performance testing. Where two emissions limits are specified for a particular pollutant (e.g., a heat input-based limit in lb/MMBtu and an electrical output-based limit in lb/MWh), the permittee may demonstrate compliance with either emission limit. For a particular compliance demonstration, the permittee may be required to conduct one or more of the following activities in conjunction with performance testing: collection of hourly electrical load data (MW); establishment of operating limits according to §63.10011 and Tables 4 and 7 of 40 CFR Part 63, Subpart UUUUU; and CMS performance evaluations. In all cases, the permittee shall demonstrate initial compliance no later than the applicable date in §63.10005(f) for tune-up work practices for existing EGUs and in §63.9984 for other requirements for existing EGUs. [§63.10005(a)]
 - a) To demonstrate initial compliance with an applicable emissions limit in Table 2 of 40 CFR Part 63, Subpart UUUUU using stack testing, the initial performance test generally consists of three runs at specified process operating conditions using approved methods. If the permittee is required to establish operating limits (see §63.10005(d) and Table 4 of 40 CFR Part 63, Subpart UUUUU), the permittee shall collect all applicable parametric data during the performance test period. Also, if the permittee chooses to comply with an electrical output-based emission limit, the permittee shall collect hourly electrical load data during the test period. [§63.10005(a)(1)]
 - b) To demonstrate initial compliance using either a CMS that measures HAP concentrations directly (*i.e.*, an Hg or HCl CEMS, or a sorbent trap monitoring system) or an SO₂ or PM CEMS, the initial performance test consists of 30 boiler operating days of data collected by the initial compliance demonstration date specified in §63.10005 with the certified monitoring system. [§63.10005(a)(2)]
 - i) The 30-boiler operating day CMS performance test shall demonstrate compliance with the applicable Hg, HCl, PM, or SO₂ emissions limit in Table 2 of 40 CFR Part 63, Subpart UUUUU. [§63.10005(a)(2)(i)]
 - ii) If the permittee chooses to comply with an electrical output-based emission limit, the permittee shall collect hourly electrical load data during the performance test period. [§63.10005(a)(2)(ii)]
2. *Performance testing requirements.* If the permittee chooses to use performance testing to demonstrate initial compliance with the applicable emissions limits in Table 2 of 40 CFR Part 63, Subpart UUUUU for the EGU, the permittee shall conduct the tests according to §63.10007 and Table 5 of 40 CFR Part 63, Subpart UUUUU. For the purposes of the initial compliance demonstration, the permittee 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: [§63.10005(b)]
 - a) 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; [§63.10005(b)(1)]
 - b) For a performance test based on data from a certified CEMS or sorbent trap monitoring system, the test consists of all valid CMS data recorded in the 30 boiler operating days immediately preceding that date; [§63.10005(b)(2)]

- c) The performance test was conducted in accordance with all applicable requirements in §63.10007 and Table 5 to 40 CFR Part 63, Subpart UUUUU; [§63.10005(b)(3)]
 - d) 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) is available for the entire performance test period; and [§63.10005(b)(4)]
 - e) For each performance test based on stack test data, the permittee certifies, and retains documentation demonstrating, that the EGU configuration, control devices, and fuel(s) have remained consistent with conditions since the prior performance test was conducted. [§63.10005(b)(5)]
3. *CMS requirements.* If, for a particular emission or operating limit, the permittee is required to (or elects to) demonstrate initial compliance using a continuous monitoring system, the CMS shall 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. [§63.10005(d)]
- a) The permittee may demonstrate initial compliance with the applicable SO₂ or HCl emissions limit in Table 2 of 40 CFR Part 63, Subpart UUUUU through use of an SO₂ or HCl CEMS installed and operated in accordance with 40 CFR Part 75 or Appendix B to 40 CFR Part 63, Subpart UUUUU, as applicable. The permittee may also demonstrate compliance with a filterable PM emission limit in Table 2 of 40 CFR Part 63, Subpart UUUUU 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, or HCl emissions limit in Table 2 to 40 CFR Part 63, Subpart UUUUU. Use 40 CFR Part 60 Appendix A-7 Method 19 Equation 19–19 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 emission limit in Table 2 to 40 CFR Part 63, Subpart UUUUU). [§63.10005(d)(1)]
 - b) For affected coal-fired EGUs that demonstrate compliance with the applicable emission limits for total non-mercury HAP metals, individual non-mercury HAP metals, total HAP metals, individual HAP metals, or filterable PM listed in Table 2 to 40 CFR Part 63, Subpart UUUUU using initial performance testing and continuous monitoring with PM CPMS: [§63.10005(d)(2)]
 - i) The permittee shall demonstrate initial compliance no later than the applicable date specified in §63.9984(f) for existing EGUs. [§63.10005(d)(2)(i)]
 - ii) The permittee shall demonstrate continuous compliance with the PM CPMS site-specific operating limit that corresponds to the results of the performance test demonstrating compliance with the pollutant emission limits with which the permittee chooses to comply. [§63.10005(d)(2)(ii)]
 - iii) The permittee shall repeat the performance test annually for the selected pollutant emissions limit and reassess and adjust the site-specific operating limit in accordance with the results of the performance test. [§63.10005(d)(2)(iii)]
 - c) For affected EGUs that are either required to or elect to demonstrate initial compliance with the applicable Hg emission limit in Table 2 of 40 CFR Part 63, Subpart UUUUU using Hg CEMS or sorbent trap monitoring systems, initial compliance shall be demonstrated no later than the applicable date specified in §63.9984(f) for existing 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 §6.2 of Appendix A to 40 CFR Part 63, Subpart UUUUU), meets the applicable Hg emission limit in Table 2 to 40 CFR Part 63, Subpart UUUUU. [§63.10005(d)(3)]

4. *Tune-ups*. All affected EGUs are subject to the work practice standards in Table 3 of 40 CFR Part 63, Subpart UUUUU. As part of the initial compliance demonstration, the permittee shall conduct a performance tune-up of the EGU according to §63.10021(e). [§63.10005(e)]
5. 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 (three 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 the source in §63.9984 and according to the applicable provisions in §63.7(a)(2) as cited in Table 9 to 40 CFR Part 63, Subpart UUUUU to demonstrate compliance with this requirement. If a tune-up occurs prior to such date, the source shall maintain adequate records to show that the tune-up met the requirements of this standard. [§63.10005(f)]
6. *Low emitting EGUs*. The provisions of §63.10005(h) apply to all pollutants with emissions limits from existing EGUs. The permittee may not pursue this compliance option if the existing EGU is equipped with an acid gas scrubber and has a main stack and bypass stack exhaust configuration. [§63.10005(h)]
 - a) An EGU may qualify for low emitting EGU (LEE) status for Hg, HCl, filterable PM, total non-Hg HAP metals, or individual non-Hg HAP metals if the permittee collects performance test data that meet the requirements of §63.10005(h), and if those data demonstrate: [§63.10005(h)(1)]
 - i) For all pollutants except Hg, performance test emissions results less than 50 percent of the applicable emissions limits in Table 2 to 40 CFR Part 63, Subpart UUUUU for all required testing for three consecutive years; or [§63.10005(h)(1)(i)]
 - ii) For Hg emissions from an existing EGU, either: [§63.10005(h)(1)(ii)]
 - (1) Average emissions less than ten percent of the applicable Hg emissions limit in Table 2 to 40 CFR Part 63, Subpart UUUUU (expressed either in units of lb/TBtu or lb/GWh); or [§63.10005(h)(1)(ii)(A)]
 - (2) Potential Hg mass emissions of 29.0 or fewer pounds per year and compliance with the applicable Hg emission limit in Table 2 to 40 CFR Part 63, Subpart UUUUU (expressed either in units of lb/TBtu or lb/GWh). [§63.10005(h)(1)(ii)(B)]
 - b) For all pollutants except Hg, the permittee shall conduct all required performance tests described in §63.10007 to demonstrate that a unit qualifies for LEE status. [§63.10005(h)(2)]
 - i) When conducting emissions testing to demonstrate LEE status, the permittee shall increase the minimum sample volume specified in Table 2 nominally by a factor of two. [§63.10005(h)(2)(i)]
 - ii) Follow the instructions in §63.10007(e) and Table 5 to 40 CFR Part 63, Subpart UUUUU to convert the test data to the units of the applicable standard. [§63.10005(h)(2)(ii)]
 - c) For Hg, the permittee shall conduct a 30-boiler operating day performance test using Method 30B in Appendix A–8 to 40 CFR Part 60 to determine whether a unit qualifies for LEE status. Locate the Method 30B sampling probe tip at a point within the ten percent centroidal area of the duct at a location that meets Method 1 in Appendix A–1 to 40 CFR Part 60 and conduct at least three nominally equal length test runs over the 30-boiler operating day test period. 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. The permittee may use a pair of sorbent traps to sample the stack gas for no more than ten days. [§63.10005(h)(3)]

- i) Depending on whether the permittee intends to assess LEE status for Hg in terms of the lb/TBtu or lb/GWh emission limit in Table 2 to 40 CFR Part 63, Subpart UUUUU or in terms of the annual Hg mass emissions limit of 29.0 lb/year, the permittee shall collect some or all of the following data during the 30-boiler operating day test period (see §63.10005(h)(3)(iii)): [§63.10005(h)(3)(i)]
 - (1) Diluent gas (CO₂ or O₂) data, using either Method 3A in Appendix A–3 to 40 CFR Part 60 or a diluent gas monitor that has been certified according to 40 CFR Part 75. [§63.10005(h)(3)(i)(A)]
 - (2) Stack gas flow rate data, using either Method 2, 2F, or 2G in Appendices A–1 and A–2 to 40 CFR Part 60, or a flow rate monitor that has been certified according to 40 CFR Part 75. [§63.10005(h)(3)(i)(B)]
 - (3) Stack gas moisture content data, using either Method 4 in Appendix A–1 to 40 CFR Part 60, or a moisture monitoring system that has been certified according to 40 CFR Part 75. Alternatively, an appropriate fuel-specific default moisture value from §75.11(b) may be used in the calculations. [§63.10005(h)(3)(i)(C)]
 - (4) Hourly electrical load data (MW), from facility records. [§63.10005(h)(3)(i)(D)]
 - ii) If the permittee uses 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 the permittee opts to use EPA reference methods rather than CEMS for any parameter, the permittee shall perform at least one representative test run on each operating day of the test period, using the applicable reference method. [§63.10005(h)(3)(ii)]
 - iii) Calculate the average Hg concentration, in µg/m³ (dry basis), for the 30-boiler operating day performance test, as the arithmetic average of all Method 30B sorbent trap results. Also calculate, as applicable, the average values of CO₂ or O₂ concentration, stack gas flow rate, stack gas moisture content, and electrical load for the test period. Then: [§63.10005(h)(3)(iii)]
 - (1) 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. [§63.10005(h)(3)(iii)(A)]
 - (2) To express the test results in units of lb/GWh, use Equations A–3 and A–4 in §6.2.2 of Appendix A to 40 CFR Part 63, Subpart UUUUU, replacing the hourly values “C_h”, “Q_h”, “B_{ws}” and “(MW)_h” with the average values of these parameters from the performance test. [§63.10005(h)(3)(iii)(B)]
 - (3) To calculate pounds of Hg per year, use one of the following methods: [§63.10005(h)(3)(iii)(C)]
 - (a) Multiply the average lb/TBtu Hg emission rate (determined according to §63.10005(h)(3)(iii)(A)) 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 [§63.10005(h)(3)(iii)(C)(1)]
 - (b) Multiply the average lb/GWh Hg emission rate (determined according to §63.10005(h)(3)(iii)(B)) 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 [§63.10005(h)(3)(iii)(C)(2)]
7. Startup and shutdown for coal-fired units. The permittee shall follow the requirements given in Table 3 to 40 CFR Part 63, Subpart UUUUU. [§63.10005(j)]

8. The permittee shall submit a Notification of Compliance Status summarizing the results of the initial compliance demonstration, as provided in §63.10030. [§63.10005(k)]

Subsequent Performance Tests and Tune-ups:

The permittee shall refer to §63.10006(a) for 40 CFR Part 63, Subpart UUUUU subsequent performance testing and tune-up requirements.

Test Methods and Procedures:

The permittee shall refer to §63.10007, Table 5 to 40 CFR Part 63, Subpart UUUUU, and Table 6 to 40 CFR Part 63, Subpart UUUUU for 40 CFR Part 63, Subpart UUUUU test methods and testing procedures.

Emissions Averaging:

The permittee shall refer to §63.10009 for 40 CFR Part 63, Subpart UUUUU emissions averaging requirements.

Monitoring, Installation, Operation, and Maintenance:

The permittee shall refer to §63.10010 for 40 CFR Part 63, Subpart UUUUU monitoring, installation, operation, and maintenance requirements.

Initial Compliance:

The permittee shall refer to §63.10011 for 40 CFR Part 63, Subpart UUUUU initial compliance requirements.

Monitoring and Data Collection:

The permittee shall refer to §63.10020 for 40 CFR Part 63, Subpart UUUUU monitoring and data collection requirements.

Continuous Compliance:

The permittee shall refer to §63.10021 and Table 7 to 40 CFR Part 63, Subpart UUUUU for 40 CFR Part 63, Subpart UUUUU continuous compliance requirements.

Continuous Compliance using Emissions Averaging:

The permittee shall refer to §63.10022 for 40 CFR Part 63, Subpart UUUUU emissions averaging requirements to demonstrate continuous compliance.

PM CPMS:

The permittee shall refer to §63.10023 for 40 CFR Part 63, Subpart UUUUU PM CPMS requirements.

Notifications:

The permittee shall refer to §63.10030 for notifications required by 40 CFR Part 63, Subpart UUUUU.

General Provisions:

The permittee shall refer to Table 9 of 40 CFR Part 63, Subpart UUUUU for 40 CFR Part 63, Subpart A applicability.

Recordkeeping:

1. The permittee shall refer to §63.10032 and §63.10033 for recordkeeping requirements specific to 40 CFR Part 63, Subpart UUUUU.
2. Records may be kept in either written or electronic form.
3. These records shall be made available immediately for inspection to Department of Natural Resources’ personnel upon request.
4. All records shall be retained for five years.

Reporting:

1. The permittee shall refer to §63.10031 and Table 8 of 40 CFR Part 63, Subpart UUUUU for reporting requirements specific to 40 CFR Part 63, Subpart UUUUU.
2. The permittee shall notify the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after an exceedance or a malfunction which could cause an exceedance of the emission limitations.
3. The permittee shall report any deviations from the standards, compliance provisions, performance testing, test methods, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 008			
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants			
Emission Unit	Description	Construction Date	Stack #
EP01	Boiler 1	1966	1
EP02	Boiler 2	1969	2

Emission Limitations:

1. The permittee shall not cause or permit to be discharged into the atmosphere from the emission units any visible emissions with an opacity greater than 40 percent.
2. Exception: The permittee may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any 60 minutes air contaminants with an opacity up to 60 percent.

Monitoring:

The permittee shall install, certify, operate and maintain a certified Continuous Opacity Monitoring System (COMS) with an automated data acquisition and handling system for measuring and recording the opacity of emissions (in percent opacity) discharged to the atmosphere.

Record Keeping:

1. A monitoring report shall include the following information as applicable:
 - a) Summary information on the number, duration and cause (including unknown cause, if applicable) of exceedances, as applicable, and the corrective actions taken;
 - b) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable).

2. The permittee shall retain each record in either hard copy or electronic form.
3. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
4. All records must be maintained for five years.

Reporting:

1. The permittee shall notify the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, at least ten days prior to any maintenance, start-up, or shutdown activity, which is expected to cause an excess release of emissions that exceeds one hour. If notification cannot be given ten days prior to any maintenance, start-up, or shutdown activity, which is expected to cause an excess release of emissions that exceeds one hour, notification shall be given as soon as practicable prior to the maintenance, start-up, or shutdown activity. If prior notification is not given for any maintenance, start-up, or shutdown activity which resulted in an excess release of emissions that exceeded one hour, notification shall be given within two business days of the release. Any other condition that results in non-compliance with the permit terms stated in this section shall be reported within ten days of the permittee becoming aware of the condition.
2. The permittee shall report any deviations from the emission limitations, operational limitation, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

PERMIT CONDITION 009			
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants			
Emission Unit	Description	Construction Date	Stack #
EP05	Auxiliary Boilers AB3A & AB3B	1981	5
EP08A	Coal Unloading	1992	V1
EP08B	Alternate Coal Unloading From Railcar Or Trucks	1965	V1
EP11A	Fly Ash Loading To Tanker Trucks	1993	V4
EP11B	Fly Ash Loading (Alternate)	1964 and 1966	V4
EP11C	Fly Ash Loading (Alternate)	1978	V4

Emission Limitations:

1. The permittee shall not cause or permit to be discharged into the atmosphere from emission units EP08B, and EP11B any visible emissions with an opacity greater than 40 percent.
2. The permittee shall not cause or permit to be discharged into the atmosphere from emission units EP05, EP08A, EP11A, and EP11C any visible emissions with an opacity greater than 20 percent.
3. Exception: The permittee may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any 60 minutes air contaminants with an opacity up to 60 percent.

Monitoring:

1. The permittee shall conduct opacity readings on these emission units using U.S. EPA Test Method 22-like procedures. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions, the source representative shall conduct a Method 9 observation.
2. The following monitoring schedule must be maintained:

- a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then
 - b) Observations shall be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then
 - c) Observations shall be made once per month. If a violation is noted, monitoring reverts to weekly.
 - d) If, at the issuance of this permit, the permittee has progressed in the schedule listed in 2.a)-c) the permittee may continue to advance accordingly or maintain observations as prescribed in 2.c).
3. If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Record Keeping:

1. The permittee shall maintain records of all observation results (see Attachments B & C, or equivalent forms generated by the permittee), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred.
2. The permittee shall maintain records of any equipment malfunctions, using Attachment D or an equivalent form generated by the permittee.
3. The permittee shall maintain records of any U.S. EPA Method 9 opacity test performed in accordance with this permit condition.
4. The permittee shall retain each record in either hard copy or electronic form.
5. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
6. All records must be maintained for five years.

Reporting:

1. The permittee shall notify the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, at least ten days prior to any maintenance, start-up, or shutdown activity, which is expected to cause an excess release of emissions that exceeds one hour. If notification cannot be given ten days prior to any maintenance, start-up, or shutdown activity, which is expected to cause an excess release of emissions that exceeds one hour, notification shall be given as soon as practicable prior to the maintenance, start-up, or shutdown activity. If prior notification is not given for any maintenance, start-up, or shutdown activity which resulted in an excess release of emissions that exceeded one hour, notification shall be given within two business days of the release. Any other condition that results in non-compliance with the permit terms stated in this section shall be reported within ten days of the permittee becoming aware of the condition.
2. The permittee shall report any deviations from the emission limitations, operational limitation, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

PERMIT CONDITION 010				
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds				
Emission Unit	Description	Maximum Hourly Design Rate (MMBtu/hr)	Fuel	Stack #
EP04	Auxiliary Boiler AB1	12.5	Fuel Oil #2	4
EP05	Auxiliary Boilers AB3A & AB3B	155.6 each		5
EP06F	Space Heater – Sample Building	2.4		Fugitive
EP06G	Space Heater – Unit 1 and 2 Crusher House	2.4		

Emission Limitation:

The permittee shall not cause or allow emissions of SO₂ into the atmosphere from any indirect heating source in excess of eight pounds of SO₂ per million BTUs actual heat input averaged on any consecutive three hour time period.

Operational Limitation:

The permittee shall only combust fuel oil #2 containing less than 0.05 percent sulfur.

Monitoring/Record Keeping

1. The permittee shall retain the calculations in Attachment E which demonstrate that the above emission limitation will not be exceeded while combusting fuel oil #2 containing less than 0.05 percent sulfur.
2. The permittee shall retain fuel purchase receipts indicating the sulfur content of the fuel oil is below 7.89 weight percent.
3. The calculation shall be made available immediately for inspection to the Department of Natural Resources’ personnel upon request.
4. All records shall be kept for a period of five years.

Reporting:

The permittee shall notify the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, at least ten days prior to any maintenance, start-up, or shutdown activity, which is expected to cause an excess release of emissions that exceeds one hour. If notification cannot be given ten days prior to any maintenance, start-up, or shutdown activity, which is expected to cause an excess release of emissions that exceeds one hour, notification shall be given as soon as practicable prior to the maintenance, start-up, or shutdown activity. If prior notification is not given for any maintenance, start-up, or shutdown activity which resulted in an excess release of emissions that exceeded one hour, notification shall be given within two business days of the release. Any other condition that results in non-compliance with the permit terms stated in this section shall be reported within ten days of the permittee becoming aware of the condition.

PERMIT CONDITION 011				
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds				
Emission Unit	Description	Maximum Hourly Design Rate (MMBtu/hr)	Fuel	Stack #
EP01	Boiler 1	1882	Subbituminous/Bituminous Coal or Fuel Oil #2	1
EP02	Boiler 2	2970		2

Emission Limitation:

The permittee shall not cause or allow emissions of SO₂ into the atmosphere from any indirect heating source in excess of eight pounds of SO₂ per million BTUs actual heat input averaged on any consecutive three hour time period.

Operational Limitation:

The permittee shall install, certify, operate and maintain a certified Continuous Emission Monitoring System (CEMS) with an automated data acquisition and handling system for measuring and recording the SO₂ emissions discharged to the atmosphere.

Monitoring/Record Keeping:

1. A monitoring report shall include the following information as applicable:
 - a) Summary information on the number, duration and cause (including unknown cause, if applicable) of exceedances, as applicable, and the corrective actions taken;
 - b) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable).
2. Should SO₂ emissions exceed the CEMS upper monitoring limit (as defined within the permittee’s 40 CFR Part 75 Monitoring Plan, submitted to and approved by the EPA) or for any periods of monitor downtime due to malfunction, repair, or quality assurance testing, the permittee shall maintain documentation of fuel blend and calculations of emissions in lb SO₂/MMBtu actual heat input for the documented fuel blend to demonstrate compliance with the emission limitation.
3. The permittee shall retain each record in either hard copy or electronic form.
4. The calculation shall be made available immediately for inspection to the Department of Natural Resources’ personnel upon request.
5. All records shall be kept for a period of five years.

Reporting:

The permittee shall notify the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, at least ten days prior to any maintenance, start-up, or shutdown activity, which is expected to cause an excess release of emissions that exceeds one hour. If notification cannot be given ten days prior to any maintenance, start-up, or shutdown activity, which is expected to cause an excess release of emissions that exceeds one hour, notification shall be given as soon as practicable prior to the maintenance, start-up, or shutdown activity. If prior notification is not given for any maintenance, start-up, or shutdown activity which resulted in an excess release of emissions that exceeded one hour, notification shall be given within two business days of the release. Any other condition that results in non-compliance with the permit terms stated in this section shall be reported within ten days of the permittee becoming aware of the condition.

PERMIT CONDITION 012	
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds	
Emission Unit	Description
EP07A	Emergency Diesel Generator For Boilers 1 And 2
EP07B	Emergency Diesel Generator For Boiler 3
EP07C	Emergency Fire Pump Engine

Emission Limitations:

The permittee shall not cause or permit the emission into the atmosphere gases containing more than 500 ppmv of SO₂ or more than 35 mg/m³ of sulfuric acid or sulfur trioxide or any combination of these gases averaged on any consecutive three-hour time period.

Operational Limitation:

The emergency engines shall only combust fuel oils #1 or #2 containing no more than 0.05 percent sulfur by weight.

Monitoring/Record Keeping:

1. The permittee shall retain fuel purchase receipts indicating the sulfur content of the fuel oil is below the limit.
2. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
3. All records shall be maintained for five years.

Reporting:

1. The permittee shall notify the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, at least ten days prior to any maintenance, start-up, or shutdown activity, which is expected to cause an excess release of emissions that exceeds one hour. If notification cannot be given ten days prior to any maintenance, start-up, or shutdown activity, which is expected to cause an excess release of emissions that exceeds one hour, notification shall be given as soon as practicable prior to the maintenance, start-up, or shutdown activity. If prior notification is not given for any maintenance, start-up, or shutdown activity which resulted in an excess release of emissions that exceeded one hour, notification shall be given within two business days of the release. Any other condition that results in non-compliance with the permit terms stated in this section shall be reported within ten days of the permittee becoming aware of the condition.
2. The permittee shall report any deviations from the emission limitations, operational limitation, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

PERMIT CONDITION 013		
10 CSR 10-6.270 Acid Rain Source Permits Required 40 CFR Part 72, 73, and 75 through 78		
Emission Unit	Description	Type
EP01	Boiler 1	Cyclone
EP02	Boiler 2	Cyclone
EP03	Boiler 3	Dry Bottom Wall-Fired

Emission Limitation:

1. The permittee shall obtain an Acid Rain Source Permit for EP01, EP02, and EP03 Boilers pursuant to Title IV of the Clean Air Act.
 - a) This facility submitted an Acid Rain application to the Missouri Department of Natural Resources on March 5, 2010. Attachment I contains a copy of this permit. The permit has been incorporated into this operating permit and is, therefore, effective as long as this Part 70 operating permit is effective. The permittee shall submit a renewal Acid Rain application at the same time as they submit a renewal Part 70 operating permit application.

Monitoring/Recordkeeping:

1. The permittee shall retain the Acid Rain permit issued to this installation on-site.
2. The permittee shall immediately make the effective acid rain permit available to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Annual Compliance Certification.
2. The permittee shall report any deviations of the emission limitation, monitoring/recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

PERMIT CONDITION 014	
10 CSR 10-6.362 Clean Air Interstate Rule Annual NO _x Trading Program 10 CSR 10-6.364 Clean Air Interstate Rule Seasonal NO _x Trading Program 10 CSR 10-6.366 Clean Air Interstate Rule SO _x Trading Program	
Emission Unit	Description
EP01	Boiler 1
EP02	Boiler 2
EP03	Boiler 3

Emission Limitation:

1. The permittee shall obtain a CAIR Permit for EP01, EP02, and EP03 Boilers pursuant to Title IV of the Clean Air Act.
 - a) This facility submitted a CAIR application to the Missouri Department of Natural Resources on July 5, 2007. Attachment J contains a copy of this permit. The permit has been incorporated into this operating permit and is, therefore, effective as long as this Part 70 operating permit is effective. The permittee shall submit a renewal CAIR application at the same time as they submit a renewal Part 70 operating permit application.

Monitoring/Recordkeeping:

1. The permittee shall retain the CAIR permit issued to this installation onsite.
2. The permittee shall immediately make the CAIR permit available to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Annual Compliance Certification.
2. The permittee shall report any deviations of the emission limitation, monitoring/recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

PERMIT CONDITION 015			
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations			
40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines ¹			
Emission Unit	Description	Design Rating	Construction Date
EP07A	Emergency Diesel Generator For Boilers 1 & 2	200 HP	1964
EP07C	Emergency Fire Pump Engine	170 HP	1979

Applicability:

Both EP07A and EP07C Emergency Engines qualify as Existing Emergency Stationary CI RICE with a site rating of less than 500 brake HP located at a major source of HAP emissions for the purpose of complying with 40 CFR Part 63, Subpart ZZZZ. [§63.6590(a)(1)(ii)] The engines shall comply with the operational limitations, recordkeeping, and reporting requirements by no later than May 3, 2013. [§63.6595(a)(1)]

Emergency stationary RICE means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used for peak shaving are not considered emergency stationary ICE. Stationary CI ICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under §63.6640(f). All emergency stationary RICE shall comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engines do not comply with the requirements in §63.6640(f), then they are not considered to be emergency stationary RICE. [§63.6675]

Operational Limitations:

1. The permittee shall comply with the operational limitations in Table 2c to 40 CFR Part 63, Subpart ZZZZ which apply. [§63.6602]
2. The permittee shall be in compliance with the operating limitations that apply at all times. [§63.6605(a)]
3. At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have

been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [§63.6605(b)]

4. The permittee shall operate and maintain the emergency stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop their own maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [§63.6625(e)]
5. The permittee shall install a non-resettable hour meter if one is not already installed. [§63.6625(f)]
6. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2c to 40 CFR Part 63, Subpart ZZZZ. The oil analysis shall be performed at the same frequency specified for changing the oil in Table 2c to 40 CFR Part 63, Subpart ZZZZ. The analysis program shall at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee shall change the oil within two days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee shall change the oil within two days or before commencing operation, whichever is later. The permittee shall retain records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the engine. [§63.6625(i)]
7. The permittee shall demonstrate continuous compliance with each operating limitation in Table 2c to 40 CFR Part 63, Subpart ZZZZ that apply according to methods specified in Table 6 to 40 CFR Part 63, Subpart ZZZZ. [§63.6640(a)]
8. Any operation of the engines other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in §63.6640(f)(1)(i) through (iii), is prohibited. The engines shall not be considered emergency engines and shall be required to meet the non-emergency engine limitations, if the permittee does not operate the engines according to the following requirements: [§63.6640(f)(1)]
 - a) There is no time limit on the use of emergency stationary RICE in emergency situations. [§63.6640(f)(1)(i)]
 - b) The permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [§63.6640(f)(1)(ii)]
 - c) The permittee may operate the emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or

otherwise supply power as part of a financial arrangement with another entity; except that the permittee may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation shall be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this §63.6640(f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power. [§63.6640(f)(1)(iii)]

Table 2c to Subpart ZZZZ of Part 63. Requirements for Existing Compression Ignition Stationary Rice Located at Major Sources of HAP Emissions

Emission Unit	Work Practices, except during periods of startup	Work Practices during periods of startup
Emergency CI ¹	Change oil and filter every 500 hrs of operation or annually, whichever comes 1 st ; ² Inspect air cleaner every 1,000 hrs of operation or annually, whichever comes 1 st ; Inspect all hoses and belts every 500 hrs of operation or annually, whichever comes 1 st , and replace as necessary. ³	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ³

¹If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of 40 CFR Part 63, Subpart ZZZZ, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources shall report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

²Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2c of 40 CFR Part 63, Subpart ZZZZ.

³Sources may petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

Table 6 to Subpart ZZZZ of Part 63. Continuous Compliance With Emission Limitations and Operating Limitations

Emission Unit	Requirement	Method of Compliance
Existing emergency stationary RICE ≤500 HP located at a major source of HAP	Work or Management practices	Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
		Develop and follow a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions

Recordkeeping:

1. The permittee shall retain the following records: [§63.6655(a)]
 - a) A copy of each report submitted to comply. [§63.6655(a)(1)]
 - b) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [§63.6655(a)(2)]
 - c) Records of all required maintenance performed on the air pollution control and monitoring equipment. [§63.6655(a)(4)]
 - d) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [§63.6655(a)(5)]
2. The permittee shall retain the records required in Table 6 of 40 CFR Part 63, Subpart ZZZZ to show continuous compliance with each operating limitation that applies. [§63.6655(d)]
3. The permittee shall retain records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to their own maintenance plan.[§63.6655(e)]
4. The permittee shall retain records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the permittee shall retain records of the notification of the emergency situation, and the time the engine was operated as part of demand response. [§63.6655(f)]
5. Records shall be in a form suitable and readily available for expeditious review according to §63.10(b)(1). [§63.6660(a)]
6. As specified in §63.10(b)(1), the permittee must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§63.6660(b)]
7. The permittee shall retain each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). [§63.6660(c)]
8. Attachment G or an equivalent form generated by the permittee shall be used to demonstrate compliance with the operating and maintenance records required above. The operating and maintenance records may be kept in electronic form or as a hard copy and shall be readily accessible for review by Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. The permittee shall report each instance in which the permittee did not meet each operating limitation in Table 2c to 40 CFR Part 63, Subpart ZZZZ that applies. These instances are deviations from the operating limitations. These deviations shall be reported according to the requirements in §63.6650. [§63.6640(b)]
2. Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), the permittee shall submit each report according to the following requirements: [§63.6650(b)]
 - a) The first semi-annual compliance report shall cover the period beginning on the compliance date that is specified for the affected source in §63.6595 and ending on June 30. [§63.6650(b)(1)]
 - b) The first semi-annual compliance report shall be postmarked or delivered no later than July 31. [§63.6650(b)(2)]
 - c) Each subsequent semi-annual compliance report shall cover the semi-annual reporting period from January 1 through June 30 or the semi-annual reporting period from July 1 through December 31. [§63.6650(b)(3)]
 - d) Each subsequent semi-annual compliance report shall be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semi-annual reporting period. [§63.6650(b)(4)]
 - e) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR Part 70, and if the permitting authority has established dates for submitting semi-annual reports pursuant to §70.6(a)(3)(iii)(A), the permittee may submit the first and subsequent semi-annual compliance reports according to the dates the permitting authority has established instead of according to the dates in §63.6650(b)(1) through (b)(4). [§63.6650(b)(5)]
3. The semi-annual compliance reports shall contain the following information: [§63.6650(c)]
 - a) Company name and address. [§63.6650(c)(1)]
 - b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. [§63.6650(c)(2)]
 - c) Date of report and beginning and ending dates of the reporting period. [§63.6650(c)(3)]
 - d) If a malfunction occurred during the reporting period, the semi-annual compliance report shall 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. The report shall also include a description of actions taken by the permittee during the malfunction to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction. [§63.6650(c)(4)]
 - e) If there are no deviations from any operating limitations that apply, a statement that there were no deviations from the operating limitations during the reporting period. [§63.6650(c)(5)]
4. For each deviation that occurs, the semi-annual compliance report shall contain the information in §63.6650(c)(1) through (4) and the following information: [§63.6650(d)]
 - a) The total operating time of the stationary RICE at which the deviation occurred during the reporting period. [§63.6650(d)(1)]
 - b) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken. [§63.6650(d)(2)]
5. The permittee shall report all deviations in the semi-annual monitoring report required by §70.6(a)(3)(iii)(A). The permittee may submit their MACT ZZZZ semi-annual compliance report along with, or as part of, the semi-annual monitoring report required by §70.6(a)(3)(iii)(A), provided the semi-annual compliance report includes all required information concerning deviations from the

operating limitations, submission of the MACT ZZZZ semi-annual compliance report shall be deemed to satisfy any obligation to report the same deviations in the semi-annual monitoring report. However, submission of the MACT ZZZZ semi-annual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [§63.6650(f)]

PERMIT CONDITION 016	
10 CSR 10-6.060 Construction Permits Required	
No Construction Permit Required Determination, Issued November 21, 2006	
Emission Unit	Description
EP-11D	Alternate Unloading System for Unit 3

Operational Limitation:

The permittee shall control emissions from the new fly-ash load-out point using a baghouse as specified in the permit application. The baghouse shall be operated and maintained in accordance with the manufacturer’s specifications and engineering practices. Replacement filters for the baghouse, sufficient to change one set of filters, shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

Monitoring/Recordkeeping:

1. The permittee shall monitor visible emissions from the baghouse using U.S. EPA Method 22-like procedures each time the fly-ash load-out point is operated. The permittee shall record their observations on Attachment B. The permittee shall inspect the bag for holes, rips, and tears when visible emissions are noted.
2. The permittee shall maintain an operating and maintenance log for the control device using Attachment D or an equivalent form generated by the permittee. The record shall be maintained in hard copy or electronic form. The log(s) shall include the following:
 - a) Incidents of malfunction, with impact on emissions, duration of the event, probable cause of the event, and corrective actions;
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.; and
 - c) Dates and times of all bag replacements.
3. The permittee shall retain the manufacturer’s specifications onsite.
4. The permittee shall retain each record in either hard copy or electronic form.
5. These records shall be made available immediately for inspection to the Department of Natural Resources’ personnel upon request.
6. All records shall be maintained for five years.

Reporting:

1. The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction, which could possibly cause an exceedance of this regulation.
2. The permittee shall report any deviations from the operational limitation, monitoring/recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 017	
10 CSR 10-6.060 Construction Permits Required Construction Permit 122010-011, Issued December 17, 2010	
Emission Unit	Description
EP01	Boiler 1
EP02	Boiler 2

Emission Limitation:

1. Special Condition 2: Standards of Performance for Best Available Control Technology (BACT) for CO
 - a) The permittee shall not emit more than 0.55 pounds of CO per MMBtu of heat input from Unit 1 and Unit 2, respectively, based on a 30-day rolling average. This limit is exclusive of emissions occurring during start-up, shutdown and malfunction.
 - b) The permittee shall not emit more than 13,873 tons per year of CO combined from Unit 1 and Unit 2, based on a 12-month rolling total. This limit is inclusive of emissions during start-up, shutdown and malfunction.
 - c) The permittee shall operate continuous CO emission monitors on Unit 1 and Unit 2 to measure, record and report CO emissions compliance.

Monitoring:

1. Special Condition 3: Continuous Emission Monitoring System (CEMS) – Unit 1 and Unit 2
 - a) The permittee shall install, certify, operate, calibrate, test and maintain CEMS for CO and any necessary auxiliary monitoring equipment in accordance with all applicable regulations. If there are conflicting regulatory requirements, the more stringent shall apply.
 - b) CEMS certification shall be made pursuant to 40 CFR Part 60, Appendix B, Performance Specification 4.
 - c) Periodic quality assurance assessments shall be conducted according to the procedures outlined in 40 CFR Part 60, Appendix F.
 - d) The permittee shall install and operate a data acquisition and handling system to calculate emissions in terms of the emission limitations specified in this permit.

Recordkeeping:

1. The permittee shall retain each record in either hard copy or electronic form.
2. Special Condition 4: The permittee shall maintain all records required by this permit, on-site, for the most recent 60 months of operation and shall make such records available immediately to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Special Condition 5: The permittee shall report CO emissions in their semi-annual monitoring reports and in their annual compliance certification.
2. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after an exceedance of either of the CO emission limitations.
3. The permittee shall report any deviations from the emission limitations, monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 018

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for
Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

Emission Unit	Description
EP04	Auxiliary Boiler AB1
EP05	Auxiliary Boilers AB3A & AB3B

Compliance Date:

1. The permittee shall comply with 40 CFR Part 63, Subpart DDDDD by no later than March 21, 2014. [§63.7495(b)]
2. The permittee shall meet the notification requirements in §63.7545 according to the schedule in §63.7545 and in Subpart A of 40 CFR Part 63, Subpart DDDDD. Some of the notifications must be submitted before the permittee is required to comply with the emission limits and work practice standards. [§63.7495(d)]

Definitions:

The permittee shall refer to §63.7575 for the definition of certain terms used by 40 CFR Part 63, Subpart DDDDD.

Emission Limitations:

1. The permittee shall meet the following requirements at all times, except as provided in §63.7500(b): [§63.7500(a)]
 - a) The permittee shall meet the following emission limits and work practice standards for each boiler, except as provided under §63.7522. [§63.7500(a)(1)]
 - i) Particulate Matter (PM): [Table 2 #10.a of 40 CFR Part 63, Subpart DDDDD]
 - (1) Emissions shall not exceed 0.0075 lb/MMBtu of heat input (three-run average), except during periods of startup and shutdown *or*
 - (2) Emissions shall not exceed 0.0073 lb/MMBtu of steam output (three-run average).
 - (3) The permittee shall collect a minimum of one dscm per run.
 - ii) Hydrogen Chloride (HCl): [Table 2 #10.b of 40 CFR Part 63, Subpart DDDDD]
 - (1) Emissions shall not exceed 0.00033 lb/MMBtu of heat input, except during periods of startup and shutdown *or*
 - (2) Emissions shall not exceed 0.0003 lb/MMBtu of steam output.
 - (3) The permittee shall collect a minimum of:
 - (a) one dscm per run if using Method 26A *or*
 - (b) 200 liters per run if using Method 26.
 - iii) Mercury (Hg): [Table 2 #10.c of 40 CFR Part 63, Subpart DDDDD]
 - (1) Emissions shall not exceed 3.5×10^{-6} lb/MMBtu of heat input, except during periods of startup and shutdown *or*
 - (2) Emissions shall not exceed 3.3×10^{-6} lb/MMBtu of steam output.
 - (3) The permittee shall collect:
 - (a) A minimum of one dscm per run if using Method 29 *or*
 - (b) A minimum sample as specified by the method if using Methods 30A or 30B *or*
 - (c) A minimum of two dscm if using ASTM D6784.
 - iv) Carbon Monoxide (CO): [Table 2 #10.d of 40 CFR Part 63, Subpart DDDDD]

- (1) Emissions shall not exceed ten ppmv on a dry basis corrected to three percent oxygen, except during periods of startup and shutdown *or*
- (2) Emissions shall not exceed 0.0083 lb/MMBtu of steam output.
- (3) Testing shall consist of a minimum of one hour sampling time and shall use a span value of 20 ppmv.
- v) Dioxins/Furans (D/F): [Table 2 #10.e of 40 CFR Part 63, Subpart DDDDD]
 - (1) Emissions shall not exceed four ng/dscm (TEQ) corrected to seven percent oxygen, except during periods of startup and shutdown *or*
 - (2) Emissions shall not exceed 9.2×10^{-9} lb/MMBtu (TEQ) of steam output.
 - (3) The permittee shall collect a minimum of one dscm per run.
- vi) The permittee shall have a one-time energy assessment performed by qualified energy assessor. An energy assessment completed on or after January 1, 2008, satisfies the energy assessment requirement if it meets or is amended to meet the following energy assessment requirements: [Table 3 #3 of 40 CFR Part 63, Subpart DDDDD]
 - (1) A visual inspection of the boiler.
 - (2) An evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints,
 - (3) An inventory of major energy consuming systems,
 - (4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,
 - (5) A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices,
 - (6) A list of major energy conservation measures,
 - (7) A list of the energy savings potential of the energy conservation measures identified, and
 - (8) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.
- vii) The permittee shall minimize the unit's startup and shutdown periods following the manufacturer's recommended procedures. If manufacturer's recommended procedures are not available, the permittee shall follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. [Table 3 #4 of 40 CFR Part 63, Subpart DDDDD]
- b) The permittee shall meet each of the following operating limits: (If the permittee uses a control device or combination of control devices not covered in Table 4 of 40 CFR Part 63, Subpart DDDDD, or if the permittee wishes to establish and monitor an alternative operating limit and alternative monitoring parameters, the permittee shall apply to the EPA Administrator for approval of alternative monitoring under §63.8(f) [§63.7500(a)(2)])
 - i) The permittee shall maintain the fuel type or fuel mixture such that the applicable emission rates calculate according to §63.7530(c)(1), (2), and/or (3) is less than the applicable emission limits. [Table 4 #7 of 40 CFR Part 63, Subpart DDDDD]
 - ii) If the permittee demonstrates compliance with a performance test, the permittee shall maintain the operating load of each unit such that it does not exceed 110 percent of the average operating load recorded during the most recent performance test. [Table 4 #8 of 40 CFR Part 63, Subpart DDDDD]
- c) At all times, the permittee shall 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 Administrator that 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.

2. As provided in §63.6(g), EPA may approve use of an alternative to the work practice standards. [§63.7500(b)]

Affirmative Defense:

The permittee shall refer to §63.7501 for affirmative defense requirements under 40 CFR Part 63, Subpart DDDDD.

General Compliance Requirements

1. The permittee shall be in compliance with the emission limits and operating limits. These limits apply at all times. [§63.7505(a)]
2. The permittee shall demonstrate compliance with all applicable emission limits using performance testing, fuel analysis, or continuous monitoring systems (CMS), including a continuous emission monitoring system (CEMS) or continuous opacity monitoring system (COMS), where applicable. The permittee may demonstrate compliance with the applicable emission limit for HCl or Hg using fuel analysis if the emission rate calculated according to §63.7530(c) is less than the applicable emission limit. Otherwise, the permittee shall demonstrate compliance for HCl or Hg using performance testing. [§63.7505(c)]
3. If the permittee demonstrates compliance with any applicable emission limit through performance testing and subsequent compliance with operating limits (including the use of continuous parameter monitoring system), or with a CEMS, or COMS, the permittee shall develop a site-specific monitoring plan according to the requirements in §63.7505(d)(1) through (4) for the use of any CEMS, COMS, or continuous parameter monitoring system. This requirement also applies if the permittee petitions the EPA Administrator for alternative monitoring parameters under §63.8(f). [§63.7505(d)]
 - a) For each CMS required (including CEMS, COMS, or continuous parameter monitoring system), the permittee shall develop, and submit to the delegated authority for approval upon request, a site-specific monitoring plan that addresses §63.7505(d)(1)(i) through (iii). The permittee shall submit this site-specific monitoring plan, if requested, at least 60 days before the initial performance evaluation of the CMS. This requirement to develop and submit a site specific monitoring plan does not apply to affected sources with existing monitoring plans that apply to CEMS and COMS prepared under Appendix B to 40 CFR Part 60 and that meet the requirements of §63.7525. [§63.7505(d)(1)]
 - i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device); [§63.7505(d)(1)(i)]
 - ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and [§63.7505(d)(1)(ii)]
 - iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations). [§63.7505(d)(1)(iii)]
 - b) In the site-specific monitoring plan, the permittee shall also address the following: [§63.7505(d)(2)]
 - i) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1)(ii), (3), and (4)(ii); [§63.7505(d)(2)(i)]

- ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and [§63.7505(d)(2)(ii)]
- iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c)(1) through (9), (e)(1), and (e)(2)(i). [§63.7505(d)(2)(iii)]
- c) The permittee shall conduct a performance evaluation of each CMS in accordance with the site-specific monitoring plan. [§63.7505(d)(3)]
- d) The permittee shall operate and maintain the CMS in continuous operation according to the site-specific monitoring plan. [§63.7505(d)(4)]

Initial Compliance Requirements

1. For affected sources that elect to demonstrate compliance with any of the applicable emission limits through performance testing, the initial compliance requirements include conducting performance tests according to §63.7520 and Table 5 of 40 CFR Part 63, Subpart DDDDD, conducting a fuel analysis for each type of fuel burned in the boiler according to §63.7521 and Table 6 of 40 CFR Part 63, Subpart DDDDD, establishing operating limits according to §63.7530 and Table 7 of 40 CFR Part 63, Subpart DDDDD, and conducting CMS performance evaluations according to §63.7525. For affected sources that burn a single type of fuel, the permittee is exempted from the compliance requirements of conducting a fuel analysis for each type of fuel burned in the boiler according to §63.7521 and Table 6 of 40 CFR Part 63, Subpart DDDDD. Units that use a supplemental fuel only for startup, unit shutdown, and transient flame stability purposes still qualify as affected sources that burn a single type of fuel, and the supplemental fuel is not subject to the fuel analysis requirements under §63.7521 and Table 6 of 40 CFR Part 63, Subpart DDDDD. [§63.7510(a)]
2. For affected sources that elect to demonstrate compliance with the applicable emission limits for HCl or Hg through fuel analysis, the initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in the boiler according to §63.7521 and Table 6 of 40 CFR Part 63, Subpart DDDDD and establish operating limits according to §63.7530 and Table 8 of 40 CFR Part 63, Subpart DDDDD. [§63.7510(b)]
3. The initial compliance demonstration for CO is to conduct a performance test for CO according to Table 5 of 40 CFR Part 63, Subpart DDDDD. The initial compliance demonstration for CO also includes conducting a performance evaluation of the continuous oxygen monitor according to §63.7525(a). [§63.7510(c)]
4. The permittee shall demonstrate initial compliance by no later than 180 days after the compliance date that is specified for the source in §63.7495 and according to the applicable provisions in §63.7(a)(2). [§63.7510(e)]
5. The permittee shall refer to §63.7530 for methods to demonstrate initial compliance with the emission limitations, fuel specifications, and work practice standards of 40 CFR Part 63, Subpart DDDDD.

Subsequent Performance Tests and Fuel Analyses:

1. The permittee shall conduct all applicable performance tests according to §63.7520 on an annual basis, except those for D/F emissions, unless the permittee follows the requirements listed in §63.7515(b) through (e). Annual performance tests shall be completed no more than 13 months after the previous performance test, unless the permittee follows the requirements listed in §63.7515(b) through (e). Annual performance testing for D/F emissions is not required after the initial compliance demonstration. [§63.7515(a)]
2. The permittee may conduct performance tests less often for a given pollutant if the performance tests for the pollutant for at least two consecutive years show that the emissions are at or below 75 percent

of the emission limit, and if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions. In this case, the permittee does not have to conduct a performance test for that pollutant for the next two years. The permittee shall conduct a performance test during the third year and no more than 37 months after the previous performance test. If the permittee elects to demonstrate compliance using emission averaging under §63.7522, the permittee shall continue to conduct performance tests annually. [§63.7515(b)]

3. If the boiler continues to meet the emission limit for the pollutant, the permittee may choose to conduct performance tests for the pollutant every third year if the emissions are at or below 75 percent of the emission limit, and if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions, but each such performance test shall be conducted no more than 37 months after the previous performance test. If the permittee elects to demonstrate compliance using emission averaging under §63.7522, the permittee shall continue to conduct performance tests annually. The requirement to test at maximum chloride input level is waived unless the stack test is conducted for HCl. The requirement to test at maximum Hg input level is waived unless the stack test is conducted for Hg. [§63.7515(c)]
4. If a performance test shows emissions exceeded 75 percent of the emission limit for a pollutant, the permittee shall conduct annual performance tests for that pollutant until all performance tests over a consecutive two-year period show compliance. [§63.7515(d)]
5. If the permittee demonstrates compliance with the Hg or HCl based on fuel analysis, the permittee shall conduct a monthly fuel analysis according to §63.7521 for each type of fuel burned that is subject to an emission limit. If the permittee burns a new type of fuel, the permittee shall conduct a fuel analysis before burning the new type of fuel in the boiler. The permittee shall still meet all applicable continuous compliance requirements in §63.7540. If 12 consecutive monthly fuel analyses demonstrate compliance, the permittee may request decreased fuel analysis frequency by applying to the EPA Administrator for approval of alternative monitoring under §63.8(f). [§63.7515(f)]
6. The permittee shall report the results of performance tests and the associated initial fuel analyses within 90 days after the completion of the performance tests. This report shall also verify that the operating limits for the affected source have not changed or provide documentation of revised operating parameters established according to §63.7530 and Table 7 of 40 CFR Part 63, Subpart DDDDD, as applicable. The reports for all subsequent performance tests shall include all applicable information required in §63.7550. [§63.7515(g)]

Stack Tests and Procedures:

The permittee shall refer to §63.7520 for stack tests and procedures required by 40 CFR Part 63, Subpart DDDDD.

Fuel Analyses, Fuel Specification, and Procedures:

The permittee shall refer to §63.7521 for fuel analyses, fuel specification, and procedures required by 40 CFR Part 63, Subpart DDDDD.

Emissions Averaging:

The permittee shall refer to §63.7522 for emissions averaging procedures allowed by 40 CFR Part 63, Subpart DDDDD.

Monitoring, Installation, Operation, and Maintenance:

The permittee shall refer to §63.7525 for monitoring, installation, operation, and maintenance requirements under 40 CFR Part 63, Subpart DDDDD.

Emissions Credits:

The permittee shall refer to §63.7533 for information regarding the use of emission credits earned from the implementation of energy conservation measures required by 40 CFR Part 63, Subpart DDDDD.

Continuous Compliance:

The permittee shall refer to §§63.7535, 63.7540, and 63.7541 for continuous compliance requirements under 40 CFR Part 63, Subpart DDDDD.

Notifications:

The permittee shall refer to §63.7545 for notification requirements under 40 CFR Part 63, Subpart DDDDD.

General Provisions:

The permittee shall refer to Table 10 of 40 CFR Part 63, Subpart DDDDD for 40 CFR Part 63, Subpart A applicability.

Recordkeeping:

1. The permittee shall refer to §63.7555 and §63.7560 for recordkeeping requirements specific to 40 CFR Part 63, Subpart DDDDD.
2. The permittee shall retain each record in either hard copy or electronic form.
3. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
4. All records shall be maintained for five years.

Reporting:

1. The permittee shall refer to §63.7550 for reporting requirements specific to 40 CFR Part 63, Subpart DDDDD.
2. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after an exceedance of any of the terms imposed by this regulation, or any malfunction, which could possibly cause an exceedance of this regulation.
3. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

IV. Core Permit Requirements

The installation shall comply with each of the following regulations or codes. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued. The following is only an excerpt from the regulation or code, and is provided for summary purposes only.

10 CSR 10-6.045 Open Burning Requirements

- 1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
- 2) Refer to the regulation for a complete list of allowances. The following is a listing of exceptions to the allowances:
 - a) Burning of household or domestic refuse. Burning of household or domestic refuse is limited to open burning on a residential premises having not more than four dwelling units, provided that the refuse originates on the same premises.
 - b) Yard waste.
- 3) Certain types of materials may be open burned provided an open burning permit is obtained from the Director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the owner or operator fails to comply with the conditions or any provisions of the permit.
- 4) AECI Thomas Hill Energy Center, Power Division may be issued an annually renewable open burning permit for open burning provided that an air curtain destructor or incinerator is utilized and only tree trunks, tree limbs, vegetation or untreated wood waste are burned. Open burning shall occur at least 200 yards from the nearest occupied structure unless the owner or operator of the occupied structure provides a written waiver of this requirement. Any waiver shall accompany the open burning permit application. The permit may be revoked if AECI Thomas Hill Energy Center, Power Division fails to comply with the provisions or any condition of the open burning permit.
 - a) In a nonattainment area, as defined in 10 CSR 10-6.020, Paragraph (2)(N)5., the Director shall not issue a permit under this section unless the owner or operator can demonstrate to the satisfaction of the Director that the emissions from the open burning of the specified material would be less than the emissions from any other waste management or disposal method.
- 5) Reporting and Record Keeping. New Source Performance Standard (NSPS) 40 CFR Part 60 Subpart CCCC establishes certain requirements for air curtain destructors or incinerators that burn wood trade waste. These requirements are established in 40 CFR 60.2245-60.2260. The provisions of 40 CFR Part 60 Subpart CCCC promulgated as of September 22, 2005, shall apply and are hereby incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401. To comply with NSPS 40 CFR 60.2245-60.2260, sources must conduct an annual Method 9 test. A copy of the annual Method 9 test results shall be submitted to the Director.
- 6) Test Methods. The visible emissions from air pollution sources shall be evaluated as specified by 40 CFR Part 60, Appendix A–Test Methods, Method 9–Visual Determination of the Opacity of Emissions from Stationary Sources. The provisions of 40 CFR Part 60, Appendix A, Method 9 promulgated as of December 23, 1971, is incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401.

10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information list to the director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under Section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under Section 643.080 or 643.151, RSMo.
- 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under Sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. [10 CSR 10-6.065(6)(B)1.A(V)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request. [10 CSR 10-6.065(6)(C)3.B]

10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part 61 Subpart M National Emission Standard for Asbestos

- 1) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.
- 2) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

10 CSR 10-6.110 Submission of Emission Data, Emission Fees and Process Information

- 1) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.
- 2) The permittee may be required by the director to file additional reports.
- 3) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
- 4) The permittee shall submit a full paper EIQ to the Air Pollution Control Program by no later than April 1st after the end of each reporting year. The permittee may instead submit a full electronic EIQ via MoEIS by no later than May 1st after the end of each reporting year.
- 5) Emission fees are due by no later than June 1st after the end of each reporting year. The fees shall be payable to the Missouri Department of Natural Resources.
- 6) The reporting period shall end on December 31 of each calendar year. Each report shall contain the required information for each emission unit for the 12-month period immediately preceding the end of the reporting period.
- 7) The permittee shall collect, record and maintain the information necessary to complete the required forms during each year of operation of the installation.

10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150 Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.170

Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

Emission Limitation:

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
- 3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
 - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
 - b) Paving or frequent cleaning of roads, driveways and parking lots;
 - c) Application of dust-free surfaces;
 - d) Application of water; and
 - e) Planting and maintenance of vegetative ground cover.

Monitoring:

- 1) The permittee shall conduct inspections of its facilities sufficient to determine compliance with this regulation. If the permittee discovers a violation, the permittee shall undertake corrective action to eliminate the violation.
 - a) The permittee shall maintain the following monitoring schedule:
 - b) The permittee shall conduct weekly observations for a minimum of eight consecutive weeks after permit issuance.
 - c) Should no violation of this regulation be observed during this period then-
 - i) The permittee may observe once every two weeks for a period of eight weeks.
 - ii) If a violation is noted, monitoring reverts to weekly.
 - iii) Should no violation of this regulation be observed during this period then-
 - (1) The permittee may observe once per month.
 - (2) If a violation is noted, monitoring reverts to weekly.
 - d) If the permittee reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall document all readings on Attachment A, or its equivalent, noting the following:
 - a) Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
 - b) Whether equipment malfunctions contributed to an exceedance.
 - c) Any violations and any corrective actions undertaken to correct the violation.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

- 1) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.
- 2) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
- 3) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-6.165 Restriction of Emission of Odors

This requirement is not federally enforceable.

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour.

10 CSR 10-6.250 Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the department. Certain business entities that meet the requirements for state-approved exemption status must allow the department to monitor training classes provided to employees who perform asbestos abatement.

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.

- d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.
- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
- 5) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part 82*

10 CSR 10-6.280 Compliance Monitoring Usage

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Any other monitoring methods approved by the Director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and

- c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a) Applicable monitoring or testing methods, cited in:
 - i) 10 CSR 10-6.030, “Sampling Methods for Air Pollution Sources”;
 - ii) 10 CSR 10-6.040, “Reference Methods”;
 - iii) 10 CSR 10-6.070, “New Source Performance Standards”;
 - iv) 10 CSR 10-6.080, “Emission Standards for Hazardous Air Pollutants”; or
 - b) Other testing, monitoring, or information gathering methods, if approved by the Director, that produce information comparable to that produced by any method listed above.

V. General Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued,

10 CSR 10-6.065(6)(C)1.B Permit Duration

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

10 CSR 10-6.065(6)(C)1.C General Record Keeping and Reporting Requirements

- 1) Record Keeping
 - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
 - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
- 2) Reporting
 - a) All reports shall be submitted to the Air Pollution Control Program's Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
 - b) The permittee shall submit a report of all required monitoring by:
 - i) October 1st for monitoring which covers the January through June time period, and
 - ii) April 1st for monitoring which covers the July through December time period.
 - iii) Exception. Monitoring requirements which require reporting more frequently than semi-annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
 - c) Each report shall identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
 - d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.

- ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
- iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semi-annual report shall be reported on the schedule specified in this permit, and no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.
- e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- f) The permittee may request confidential treatment of information submitted in any report of deviation.

10 CSR 10-6.065(6)(C)1.D Risk Management Plan Under Section 112(r)

The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:

- 1) June 21, 1999;
- 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
- 3) The date on which a regulated substance is first present above a threshold quantity in a process.

10 CSR 10-6.065(6)(C)1.E Title IV Allowances

This permit prohibits emissions which exceed any allowances the installation holds under Title IV of the Clean Air Act.

No permit revisions shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program if the increases do not require a permit revision under any other applicable requirement.

Limits cannot be placed on the number of allowances that may be held by an installation. The installation may not use these allowances, however, as a defense for noncompliance with any other applicable requirement.

Any allowances held by a Title IV installation shall be accounted for according to procedures established in rules promulgated under Title IV of the Clean Air Act.

The permittee applied for an Acid Rain permit on March 5, 2010. The Acid Rain Permit has been incorporated into this Part 70 Operating Permit (see Attachment I). The Acid Rain Permit is effective as long as this Part 70 Operating Permit is effective. The permittee shall submit a renewal application for Acid Rain at the same time as they submit a renewal application for this Part 70 Operating Permit (six months prior to the expiration date).

10 CSR 10-6.065(6)(C)1.F Severability Clause

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

10 CSR 10-6.065(6)(C)1.G General Requirements

- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

10 CSR 10-6.065(6)(C)1.H Incentive Programs Not Requiring Permit Revisions

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

10 CSR 10-6.065(6)(C)1.I Reasonably Anticipated Operating Scenarios

None.

10 CSR 10-6.065(6)(C)1.J Emissions Trading

The permittee applied for an Acid Rain permit on March 5, 2010. The Acid Rain Permit has been incorporated into this Part 70 Operating Permit (see Attachment I). The Acid Rain Permit is effective as long as this Part 70 Operating Permit is effective. The permittee shall submit a renewal application for Acid Rain at the same time as they submit a renewal application for this Part 70 Operating Permit (six months prior to the expiration date).

The permittee applied for a CAIR Permit on July 5, 2007. The CAIR Permit has been incorporated into this Part 70 Operating Permit (see Attachment J). The CAIR Permit is effective as long as this Part 70

Operating Permit is effective. The permittee shall submit a renewal application for CAIR at the same time as they submit a renewal application for this Part 70 Operating Permit (6 months prior to the expiration date).

10 CSR 10-6.065(6)(C)3 Compliance Requirements

- 1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- 2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- 3) All progress reports required under an applicable schedule of compliance shall be submitted semi-annually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 901 North 5th Street, Kansas City, KS 66101, as well as the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
 - a) The identification of each term or condition of the permit that is the basis of the certification;
 - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
 - c) Whether compliance was continuous or intermittent;
 - d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
 - e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

10 CSR 10-6.065(6)(C)6 Permit Shield

- 1) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
 - a) The application requirements are included and specifically identified in this permit, or
 - b) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
- 2) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
 - a) The provisions of Section 303 of the Act or Section 643.090, RSMo concerning emergency orders,
 - b) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
 - c) The applicable requirements of the acid rain program,
 - d) The authority of the Environmental Protection Agency and the Air Pollution Control Program of the Missouri Department of Natural Resources to obtain information, or
 - e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

10 CSR 10-6.065(6)(C)7 Emergency Provisions

- 1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
 - a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
 - b) That the installation was being operated properly,
 - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
 - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- 2) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

10 CSR 10-6.065(6)(C)8 Operational Flexibility

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, KS 66101, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that

establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1) Section 502(b)(10) changes. Changes that, under Section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), record keeping, reporting or compliance requirements of the permit.
 - a) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, KS 66101, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the Air Pollution Control Program shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the Air Pollution Control Program as above at least seven days before the change is to be made. If less than seven days notice is provided because of a need to respond more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the Air Pollution Control Program as soon as possible after learning of the need to make the change.
 - b) The permit shield shall not apply to these changes.

10 CSR 10-6.065(6)(C)9 Off-Permit Changes

- 1) Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
 - b) The permittee must provide written notice of the change to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, KS 66101, no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
 - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
 - d) The permit shield shall not apply to these changes.

10 CSR 10-6.020(2)(R)12 Responsible Official

The application utilized in the preparation of OP2010-126 was signed by Tom Watkins, Plant Manager. On May 20, 2011, the Air Pollution Control Program received a request to amend OP2010-126 signed by Todd Tolbert, Senior Environmental Analyst. On November 7, 2011, the Air Pollution Control

Program was notified by Todd Tolbert, Senior Environmental Analyst that persons occupying the following positions at AECI are authorized to act in the capacity of Responsible Official, as defined by §70.2, for Thomas Hill Energy Center:

- ♦ Thomas Hill Energy Center Plant Manager
- ♦ Thomas Hill Energy Center Assistant Plant Manager
- ♦ Title IV Designated Representative
- ♦ Title IV Alternate Designated Representative

Persons occupying the stated AECI positions are delegated to bind the installation in environmental permitting affairs, the permittee shall notify the Director of the Air Pollution Control Program to request changes to the positions listed. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include title of the position assigned by the permittee to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by former responsible persons that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

Persons occupying the stated AECI positions are delegated for the purposes of Title V only. All Title IV submissions shall be signed by either the Title IV Designated Representative or the Title IV Alternate Designated Representative.

10 CSR 10-6.065(6)(E)6 Reopening-Permit for Cause
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This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
- 2) MDNR or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 3) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
 - a) The permit has a remaining term of less than three years;
 - b) The effective date of the requirement is later than the date on which the permit is due to expire;or
 - c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit; or
- 5) The Missouri Department of Natural Resources or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065(6)(E)1.C Statement of Basis

This permit is accompanied by a statement setting forth the legal and factual basis for the permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

VI. Attachments

Attachments follow.

Attachment C
 Method 9 Opacity Observations

Company					Observer			
Location					Observer Certification Date			
Date					Emission Unit			
Time					Control Device			
Hour	Minute	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
SUMMARY OF AVERAGE OPACITY								
Set Number	Time				Opacity			
	Start	End		Sum	Average			

Readings ranged from _____ to _____ % opacity.

Was the emission unit in compliance at the time of evaluation? _____
 YES NO Signature of Observer

ATTACHMENT E
 10 CSR 10-6.260 Compliance Demonstration

This attachment may be used to demonstrate that the listed emission units are in compliance with 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*.

10 CSR 10-6.260(3)(C)2.A prohibits the emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of 8.0 lb/MMBtu.

Emission Unit	Description	Fuel	Emission Factor (lb/1000 gallons)	Emission Factor (lb/MMBtu)	Emission Limit (lb/MMBtu)	Is the Emission Unit in compliance?
EP04	Boilers	Fuel Oil #2 ¹	142S S = 0.05%	0.05	8	Yes
EP05						
EP06F	Space Heaters					
EP06G						

¹An average heating value of 140,000 Btu/gallon of Fuel Oil #2 taken from AP-42's Appendix A was used to convert the FIRE emission factor from lb/1000 gallons to lb/MMBtu.

The emission factor was taken from AP-42 Table 1.3-1 for Process SCCs 10100501 (EP05) and 10200502 (EP04, EP06F, and EP06G). The permittee is compliance while combusting fuel oil #2 containing less than 0.05% sulfur.

The emission units meet the emission limitation without the use of a control device, therefore, 40 CFR Part 64 *Compliance Assurance Monitoring* is not applicable.

ATTACHMENT G

10 CSR 10-6.075 – 40 CFR Part 63, Subpart ZZZZ Operating and Maintenance Record

Date: _____

Employee ID: _____

This form contains the required recordkeeping under 40 CFR Part 63, Subpart ZZZZ for the following units:

Emission Unit	Description	Design Rating	Construction Date
EP07A	Emergency Diesel Generator For Boilers 1 And 2	200 HP	1964
EP07C	Emergency Fire Pump Engine	170 HP	1979

- Unit Operating Hours -

Emission Unit	A Current Hour Meter Reading	B Previous Hour Meter Reading	C Hours Elapsed A+B=C	D ¹ Is Column C < 30 Minutes?	E ² Indicate % of Operations as: (EM) Emergency Operation (TST) Maintenance/Testing (MAL) Unit Malfunction		
					(EM)	(TST)	(MAL)

¹Engine idling is limited to a maximum of 30 minutes on startup

²If you indicated operating time as “EM” in Column E above, please describe in the space provided below the nature of the emergency:

- Maintenance Records -

Emission Unit	F ² Date of Most Recent Oil Change	G ³ Date of Most Recent Air Filter Inspection	H ⁴ Date of Most Recent Hose & Belt Inspection	I Are you performing maintenance today?	J ⁵ If I = “Yes”, Please describe the Maintenance Performed

²Engine oil and filter must be changed every 500 hours or annually, whichever comes first

³Engine air filter must be inspected every 1,000 hours or annually, whichever comes first – replace as necessary

⁴Engine hoses and belts must be inspected every 500 hours or annually, whichever comes first – replace as necessary

⁵Engine maintenance must be performed according to manufacturer recommendations or the plant maintenance plan. Use the box below to add additional information regarding the maintenance work performed today if the space in Column J is not large enough:

ATTACHMENT H
10 CSR 10-6.405 Compliance Demonstration

This attachment may be used to demonstrate that the listed emission units are in compliance with 10 CSR 10-6.405 *Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating*. Installation's Total Heat Input (Q) in MMBtu/hr:

Emission Unit	Description	MHDR (MMBtu/hr)
EP01	Boiler 1	1,882
EP02	Boiler 2	2,970
EP03	Boiler 3	7,000
EP04	Auxiliary Boiler AB1	12.5
EP05	Auxiliary Boilers AB3A & AB3B	155.6 each
EP06A	Space Heater – Unit 1 and 2 Intake Structure	0.99
EP06B	Space Heater – Portable Unit	0.5
EP06C	Space Heater – Transfer House #1	1.2
EP06D	Space Heater – Transfer House #2	1.2
EP06E	Space Heater – Transfer House #3	1.2
EP06F	Space Heater – Sample Building	2.4
EP06G	Space Heater – Unit 1 and 2 Crusher House	2.4
Total Q		12,185.59

The maximum allowable PM emission limit for existing indirect heating sources at an installation located in the outstate Missouri area having a total capacity greater than 10,000 MMBtu/hr is 0.18 lb/MMBtu. [10 CSR 10-6.405(3)(D)]

The maximum allowable PM emission limit for new indirect heating sources at an installation located in the outstate Missouri area having a total capacity greater than 2,000 MMBtu/hr is 0.10 lb/MMBtu. [10 CSR 10-6.405(D)(E)]

Uncontrolled Calculations

Emission Unit	Fuel	Emission Factor	Emission Factor Source	Emission Factor (lb/MMBtu)	Emission Limit (lb/MMBtu)	Potential Emissions (ton/yr)
EP01	Fuel Oil #2 ¹	1 lb/1000 gallons	FIRE SCC 10100501	0.007	0.18	4,382.26
	Subbituminous Coal ²	2A lb/ton A = 4.56%	AP-42 Table 1.1-4 Process SCC 10100223	0.53		
EP02	Fuel Oil #2 ¹	1 lb/1000 gallons	FIRE SCC 10100501	0.007		6,915.68
	Subbituminous Coal ²	2A lb/ton A = 4.56%	AP-42 Table 1.1-4 Process SCC 10100223	0.53		
EP04	Fuel Oil #2 ¹	2.46 lb/1000 gallons	FIRE SCC 10500105	0.03	0.18	0.99
EP05						24.15
EP06F					0.10	0.18
EP06G						0.18

¹An average heating value of 140,000 Btu/gallon of Fuel Oil #2 taken from AP-42's Appendix A was used to convert the FIRE emission factor from lb/1000 gallons to lb/MMBtu.

²An average heating value of 8,600 Btu/lb of Subbituminous Coal taken from the installation's 2009 EIQ was used to convert the AP-42 emission factor from lb/ton to lb/MMBtu. The percent ash was taken from the installation's 2010 EIQ.

ATTACHMENT H, continued

EP04 and EP05 Auxiliary Boilers and EP06F and EP06G Space Heaters are in compliance with this regulation without the aid of a control device while combusting the specified fuel and being properly maintained and operated; therefore, 40 CFR Part 64 *Compliance Assurance Monitoring* is not applicable.

EP01 and EP02 Boilers are not in compliance while combusting subbituminous coal, as potential uncontrolled particulate emissions are above the 100 ton per year major source threshold, 40 CFR Part 64 *Compliance Assurance Monitoring* is applicable. [The boilers are in compliance with the regulation without the aid of a control device while combusting fuel oil #2.]

Controlled Calculations

Emission Unit	Fuel	Control Device	Control Efficiency	Controlled Emission Factor (lb/MMBtu)	Emission Limit (lb/MMBtu)
EP01	Subbituminous Coal	CD01 ESP	98%	0.01	0.18
EP02		CD02 ESP			

EP01 and EP02 Boilers were given 98 percent control efficiencies for ESPs. The permittee is in compliance with the PM limits while meeting the requirements of their *Compliance Assurance Monitoring* plan.

ATTACHMENT I
Acid Rain Permit

**TITLE IV: ACID RAIN
PERMIT**

In accordance with Titles IV and V of the Clean Air Act and Missouri State Rule 10 CSR 10-6.270, *Acid Rain Source Permits Required*, the State of Missouri issues this Acid Rain Permit.

Installation Name: Associated Electric Cooperative, Inc. – Thomas Hill
ORIS Code: 2168
Project Number: 2004-05-016
Unit IDs: MB1, MB2, and MB3

The permit application submitted for this source, as corrected by the State of Missouri Department of Natural Resources, Air Pollution Control Program, Operating Permit Section, is attached. The owners and operators of this source must comply with the standard requirements and special provisions set forth in this application.

The number of allowances actually held by an affected source in a unit account may differ from the number allocated by the United States Environmental Protection Agency. Pursuant to 40 CFR 72.84, *Automatic permit amendment*, this does not necessitate a revision to any unit SO₂ allowance allocations identified in this permit.

Pursuant to 40 CFR Part 76, the Missouri Department of Natural Resources, Air Pollution Control Program approves the Phase II NO_x Compliance Plan submitted for these units, effective for the life of this permit. In addition to complying with these NO_x limits, these units shall comply with all other applicable requirements of 40 CFR Part 76, including the requirement to reapply for a NO_x compliance plan and requirements covering excess emissions.

MB3 is a coal-fired substitution unit subject to Phase I NO_x emission limitations per 40 CFR 76.1(c)(1).

This Title IV Acid Rain Permit is effective for a five-year period ending December 16, 2015, per 40 CFR 72.69, *Issuance and effective date of acid rain permits*. The designated representative must submit an application for renewal of this permit in conjunction with the Title V Part 70 Operating Permit renewal application.

Date

Director or Designee,
Department of Natural Resources

Thomas Hill Energy Center Plant Name (from Step 1)

Acid Rain - Page 2

STEP 3

**Read the
standard
requirements**

Permit Requirements

- (1) The designated representative of each affected source and each affected unit at the source shall:
 - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
 - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
 - (ii) Have an Acid Rain Permit.

Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another affected unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Thomas Hill Energy Center Plant Name (from Step 1)

Acid Rain - Page 3

STEP 3,
Cont'd.

Nitrogen Oxides Requirements The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

- (1) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected unit that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
 - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

Thomas Hill Energy Center Plant Name (from Step 1)

Acid Rain - Page 4

Step 3,
Cont'd.

Liability, Cont'd.

- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

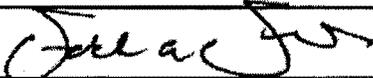
- No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:
- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
 - (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
 - (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
 - (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
 - (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4

Certification

Read the
certification
statement,
sign, and
date

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected 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.

Name	Todd A. Tolbert - Alternate Designated Representative	
Signature		Date March 5, 2010

Plant Name (from Step 1) Thomas Hill Energy Center

STEP 2, cont'd.

	ID#	ID#	ID#	ID#	ID#	ID#
Type	Type	Type	Type	Type	Type	Type
(m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17 (a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2)	<input type="checkbox"/>					
(n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)	<input type="checkbox"/>					
(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing	<input type="checkbox"/>					
(p) Repowering extension plan approved or under review	<input type="checkbox"/>					

STEP 3
 Read the standard requirements and certification, enter the name of the designated representative, sign &

Standard Requirements

General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Permit.

Special Provisions for Early Election Units

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO_x as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).

Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.

Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected 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.

Name Todd A. Tolbert (ADR)	
Signature	Date March 11, 2010

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258



Phase II NO_x Averaging Plan

For more information, see instructions and refer to 40 CFR 76.11

Page 1

This submission is: New Renewal

Page 1 of 2

STEP 1

Identify the units participating in this averaging plan by plant name, State, and boiler ID# from NADB. In column (a), fill in each unit's applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7. In column (b), assign an alternative contemporaneous annual emissions limitation (ACEL) in lb/mmBtu to each unit. In column (c), assign an annual heat input limitation in mmBtu to each unit. Continue to page 3 if necessary.

Plant Name	State	ID#	(a) Emission Limitation	(b) ACEL	(c) Annual Heat Input Limit
New Madrid	MO	1	0.86	0.93	45,000,000
New Madrid	MO	2	0.86	0.93	45,000,000
Thomas Hill	MO	MB1	0.86	0.93	17,000,000
Thomas Hill	MO	MB2	0.86	0.93	25,000,000
Thomas Hill	MO	MB3	0.50	0.30	50,000,000

STEP 2

Use the formula to enter the Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan and the Btu-weighted annual average emission rate for the same units if they are operated in compliance with 40 CFR 76.5, 76.6, or 76.7. The former must be less than or equal to the latter.

Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan

Btu-weighted annual average emission rate for same units operated in compliance with 40 CFR 76.5, 76.6 or 76.7

0.76

≤

0.76

$$\frac{\sum_{i=1}^n (R_{Li} \times HI_i)}{\sum_{i=1}^n HI_i}$$

≤

$$\frac{\sum_{i=1}^n [R_{Li} \times HI_i]}{\sum_{i=1}^n HI_i}$$

Where,

- R_{Li} = Alternative contemporaneous annual emission limitation for unit i, in lb/mmBtu, as specified in column (b) of Step 1;
- R_i = Applicable emission limitation for unit i, in lb/mmBtu, as specified in column (a) of Step 1;
- HI_i = Annual heat input for unit i, in mmBtu, as specified in column (c) of Step 1;
- n = Number of units in the averaging plan

Associated Electric Cooperative, Inc.
Plant Name (from Step 1)

NO_x Averaging - Page 2

STEP 3

Mark one of the two options and enter dates.

This plan is effective for calendar year 2010 through calendar year 2014 unless notification to terminate the plan is given.

Treat this plan as identical plans, each effective for one calendar year for the following calendar years: _____, _____, _____, _____ and _____ unless notification to terminate one or more of these plans is given.

STEP 4

Read the special provisions and certification, enter the name of the designated representative, and sign and date.

Special Provisions

Emission Limitations

Each affected unit in an approved averaging plan is in compliance with the Acid Rain emission limitation for NO_x under the plan only if the following requirements are met:

- (i) For each unit, the unit's actual annual average emission rate for the calendar year, in lb/mmBtu, is less than or equal to its alternative contemporaneous annual emission limitation in the averaging plan, and
 - (a) For each unit with an alternative contemporaneous emission limitation less stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year does not exceed the annual heat input limit in the averaging plan,
 - (b) For each unit with an alternative contemporaneous emission limitation more stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year is not less than the annual heat input limit in the averaging plan, or
- (ii) If one or more of the units does not meet the requirements of (i), the designated representative shall demonstrate, in accordance with 40 CFR 76.11(d)(1)(ii)(A) and (B), that the actual Btu-weighted annual average emission rate for the units in the plan is less than or equal to the Btu-weighted annual average rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations in 40 CFR 76.5, 76.6, or 76.7.
- (iii) If there is a successful group showing of compliance under 40 CFR 76.11(d)(1)(ii)(A) and (B) for a calendar year, then all units in the averaging plan shall be deemed to be in compliance for that year with their alternative contemporaneous emission limitations and annual heat input limits under (i).

Liability

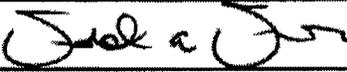
The owners and operators of a unit governed by an approved averaging plan shall be liable for any violation of the plan or this section at that unit or any other unit in the plan, including liability for fulfilling the obligations specified in part 77 of this chapter and sections 113 and 411 of the Act.

Termination

The designated representative may submit a notification to terminate an approved averaging plan, in accordance with 40 CFR 72.40(d), no later than October 1 of the calendar year for which the plan is to be terminated.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected 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.

Name Todd A. Tolbert (ADR)	
Signature 	Date March 11, 2010

ATTACHMENT J
CAIR Permit

TITLE V: CLEAN AIR INTERSTATE RULE (CAIR) PERMIT

In accordance with Title V of the Clean Air Act and Missouri State Rules 10 CSR 10-6.362, *Clean Air Interstate Rule Annual NO_x Trading Program*, 10 CSR 10-6.364 *Clean Air Interstate Rule Seasonal NO_x Trading Program*, and 10 CSR 10-6.366, *Clean Air Interstate Rule SO_x Trading Program*, the State of Missouri issues this CAIR Permit.

Installation Name: Associated Electric Cooperative, Inc. – Thomas Hill
ORIS Code: 2168
Project Number: 2007-07-090
Unit IDs: Units 1, 2, and 3

The permit application submitted for this source, as corrected by the State of Missouri Department of Natural Resources' Air Pollution Control Program, Operating Permit Section, is attached. The permittee shall comply with the standard requirements and special provisions set forth in this application.

This Title V CAIR Permit applies only to Units 1, 2, and 3 at Associated Electric Cooperative, Inc. – Thomas Hill, plant 175-0001.

This Title V CAIR permit is effective for a five-year period ending December 6, 2015. The designated representative must submit an application for renewal of this permit in conjunction with the Title V Part 70 Operating Permit renewal application.

Date

Director or Designee,
Department of Natural Resources

CAIR Permit Application RECEIVED

Page 1

(for sources covered under a CAIR §107) JUL -5 PM 1:31

For more information, refer to 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321, and 96.322

This submission is: New Revised

CONTROL PGM

STEP 1
 Identify the source by plant name, State, and ORIS or facility code

Thomas Hill Power Plant Plant Name	MO State	002168 ORIS/Facility Code
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STEP 2
 Enter the unit ID# for each CAIR unit and indicate to which CAIR programs each unit is subject (by placing an "X" in the column)

Unit ID#	NO _x Annual	SO ₂	NO _x Ozone Season
1	X	X	X
2	X	X	X
3	X	X	X

STEP 3
 Read the standard requirements and the certification, enter the name of the CAIR designated representative, and sign and date

Standard Requirements

(a) Permit Requirements.

(1) The CAIR designated representative of each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x Ozone Season source (as applicable) required to have a title V operating permit and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) required to have a title V operating permit at the source shall:

(i) Submit to the permitting authority a complete CAIR permit application under §96.122, §96.222, and §96.322 (as applicable) in accordance with the deadlines specified in §96.121, §96.221, and §96.321 (as applicable); and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.

(2) The owners and operators of each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x Ozone Season source (as applicable) required to have a title V operating permit and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) required to have a title V operating permit at the source shall have a CAIR permit issued by the permitting authority under subpart CC, CCC, and CCCC (as applicable) of 40 CFR part 96 for the source and operate the source and the unit in compliance with such CAIR permit.

(3) Except as provided in subpart II, III, and IIII (as applicable) of 40 CFR part 96, the owners and operators of a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x Ozone Season source (as applicable) that is not otherwise required to have a title V operating permit and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) that is not otherwise required to have a title V operating permit are not required to submit a CAIR permit application, and to have a CAIR permit, under subpart CC, CCC, and CCCC (as applicable) of 40 CFR part 96 for such CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x Ozone Season source (as applicable) and such CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable).

STEP 3,
continued

Thomas Hill Power Plant
Plant Name (from Step 1)

CAIR Permit Application
Page 2

(b) Monitoring, reporting, and recordkeeping requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x Ozone Season source (as applicable) and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96.

(2) The emissions measurements recorded and reported in accordance with subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96 shall be used to determine compliance by each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x Ozone Season source (as applicable) with the CAIR NO_x emissions limitation, CAIR SO₂ emissions limitation, and CAIR NO_x Ozone Season emissions limitation (as applicable) under paragraph (c) of §96.106, §96.206, and §96.306 (as applicable).

(c) Nitrogen oxides emissions requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall hold, in the source's compliance account, CAIR NO_x allowances available for compliance deductions for the control period under §96.154(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_x units at the source, as determined in accordance with subpart HH of 40 CFR part 96.

(2) A CAIR NO_x unit shall be subject to the requirements under paragraph (c)(1) of §96.106 for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under §96.170(b)(1), (2), or (5) and for each control period thereafter.

(3) A CAIR NO_x allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of §96.106, for a control period in a calendar year before the year for which the CAIR NO_x allowance was allocated.

(4) CAIR NO_x allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Allowance Tracking System accounts in accordance with subparts FF, GG, and II of 40 CFR part 96.

(5) A CAIR NO_x allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_x Annual Trading Program. No provision of the CAIR NO_x Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under §96.105 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.

(6) A CAIR NO_x allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subpart EE, FF, GG, or II of 40 CFR part 96, every allocation, transfer, or deduction of a CAIR NO_x allowance to or from a CAIR NO_x source's compliance account is incorporated automatically in any CAIR permit of the source that includes the CAIR NO_x unit.

Sulfur dioxide emission requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, a tonnage equivalent of CAIR SO₂ allowances available for compliance deductions for the control period under §96.254(a) and (b) not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO₂ units at the source, as determined in accordance with subpart HHH of 40 CFR part 96.

(2) A CAIR SO₂ unit shall be subject to the requirements under paragraph (c)(1) of §96.206 for the control period starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under §96.270(b)(1), (2), or (5) and for each control period thereafter.

(3) A CAIR SO₂ allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of §96.206, for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.

(4) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ Allowance Tracking System accounts in accordance with subparts FFF, GGG, and III of 40 CFR part 96.

(5) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ Trading Program. No provision of the CAIR SO₂ Trading Program, the CAIR permit application, the CAIR permit, or an exemption under §96.205 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.

(6) A CAIR SO₂ allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subpart FFF, GGG, or III of 40 CFR part 96, every allocation, transfer, or deduction of a CAIR SO₂ allowance to or from a CAIR SO₂ source's compliance account is incorporated automatically in any CAIR permit of the source that includes the CAIR SO₂ unit.

Nitrogen oxides ozone season emissions requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_x Ozone Season allowances available for compliance deductions for the control period under §96.354(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_x Ozone Season units at the source, as determined in accordance with subpart HHHH of 40 CFR part 96.

(2) A CAIR NO_x Ozone Season unit shall be subject to the requirements under paragraph (c)(1) of §96.306 for the control period starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under §96.370(b)(1), (2), (3) or (7) and for each control period thereafter.

(3) A CAIR NO_x Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of §96.306, for a control period in a calendar year before the year for which the CAIR NO_x Ozone Season allowance was allocated.

(4) CAIR NO_x Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Ozone Season Allowance Tracking System accounts in accordance with subparts FFFF, GGGG, and IIII of 40 CFR part 96.

(5) A CAIR NO_x allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_x Ozone Season Trading Program. No provision of the CAIR NO_x Ozone Season

Thomas Hill Power Plant
Plant Name (from Step 1)

CAIR Permit Application
Page 3

**STEP 3,
continued**

Trading Program, the CAIR permit application, the CAIR permit, or an exemption under §96.305 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.

(6) A CAIR NO_x allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subpart EEEE, FFFF, GGGG, or IIII of 40 CFR part 96, every allocation, transfer, or deduction of a CAIR NO_x Ozone Season allowance to or from a CAIR NO_x Ozone Season source's compliance account is incorporated automatically in any CAIR permit of the source.

(d) Excess emissions requirements.

If a CAIR NO_x source emits nitrogen oxides during any control period in excess of the CAIR NO_x emissions limitation, then:

(1) The owners and operators of the source and each CAIR NO_x unit at the source shall surrender the CAIR NO_x allowances required for deduction under §96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.

If a CAIR SO₂ source emits sulfur dioxide during any control period in excess of the CAIR SO₂ emissions limitation, then:

(1) The owners and operators of the source and each CAIR SO₂ unit at the source shall surrender the CAIR SO₂ allowances required for deduction under §96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.

If a CAIR NO_x Ozone Season source emits nitrogen oxides during any control period in excess of the CAIR NO_x Ozone Season emissions limitation, then:

(1) The owners and operators of the source and each CAIR NO_x Ozone Season unit at the source shall surrender the CAIR NO_x Ozone Season allowances required for deduction under §96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.

(e) Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x Ozone Season source (as applicable) and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) at the source shall keep on site at the source each of the following documents 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 permitting authority or the Administrator.

(i) The certificate of representation under §96.113, §96.213, and §96.313 (as applicable) for the CAIR designated representative for the source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) 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 documents are superseded because of the submission of a new certificate of representation under §96.113, §96.213, and §96.313 (as applicable) changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96, provided that to the extent that subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96 provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Annual Trading Program, CAIR SO₂ Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable).

(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO_x Annual Trading Program, CAIR SO₂ Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable) or to demonstrate compliance with the requirements of the CAIR NO_x Annual Trading Program, CAIR SO₂ Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable).

(2) The CAIR designated representative of a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x Ozone Season source (as applicable) and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) at the source shall submit the reports required under the CAIR NO_x Annual Trading Program, CAIR SO₂ Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable) including those under subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96.

Thomas Hill Power Plant
Plant Name (from Step 1)

CAIR Permit Application
Page 4

STEP 3,
continued

(f) Liability.

(1) Each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x Ozone Season source (as applicable) and each NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) shall meet the requirements of the CAIR NO_x Annual Trading Program, CAIR SO₂ Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable).

(2) Any provision of the CAIR NO_x Annual Trading Program, CAIR SO₂ Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable) that applies to a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x Ozone Season source (as applicable) or the CAIR designated representative of a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x Ozone Season source (as applicable) shall also apply to the owners and operators of such source and of the CAIR NO_x units, CAIR SO₂ units, and CAIR NO_x Ozone Season units (as applicable) at the source.

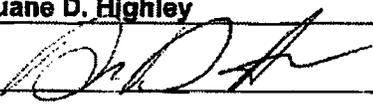
(3) Any provision of the CAIR NO_x Annual Trading Program, CAIR SO₂ Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable) that applies to a CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) or the CAIR designated representative of a CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) shall also apply to the owners and operators of such unit.

(g) Effect on Other Authorities.

No provision of the CAIR NO_x Annual Trading Program, CAIR SO₂ Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable), a CAIR permit application, a CAIR permit, or an exemption under § 96.105, §96.205, and §96.305 (as applicable) shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x Ozone Season source (as applicable) or CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

Certification

I am authorized to make this submission on behalf of the owners and operators of the source or 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.

Name Duane D. Highley	
Signature 	Date June 27, 2007

STATEMENT OF BASIS

Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

- 1) Part 70 Operating Permit OP2010-126, Issued December 7, 2010
- 2) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition
- 3) U.S. EPA's Factor Information Retrieval (FIRE) Data System 6.25
- 4) 2006, 2007, 2008, 2009, and 2010 Emissions Inventory Questionnaires
- 5) Construction Permit 0278-001, Issued February 6, 1978
- 6) Construction Permit 0380-011, Issued March 20, 1980
- 7) Construction Permit 0380-011A, Issued January 24, 1983
- 8) Construction Permit 0380-011B, Issued September 23, 1987
- 9) Construction Permit 0380-011C, Issued August 12, 1988
- 10) Construction Permit 0181-002, Issued December 29, 1980
- 11) No Construction Permit Required Determination, Issued September 25, 1990
- 12) Construction Permit 0493-017, Issued April 29, 1993
- 13) Construction Permit 0493-017A, Issued August 30, 1993
- 14) No Construction Permit Required Determination, Issued December 1, 1993
- 15) Construction Permit 0596-041, Issued May 24, 1996
- 16) Construction Permit 0596-041A, Issued October 24, 2000
- 17) No Construction Permit Required Determination, Issued October 29, 1999
- 18) No Construction Permit Required Determination, Issued October 2, 2000
- 19) No Construction Permit Required Determination, Issued September 6, 2001
- 20) No Construction Permit Required Determination, Issued December 21, 2001
- 21) Temporary Construction Permit 112002-006, Issued November 18, 2002
- 22) No Construction Permit Required Determination, Issued May 15, 2003
- 23) No Construction Permit Required Determination, Issued January 6, 2005
- 24) No Construction Permit Required Determination, Issued October 24, 2005
- 25) No Construction Permit Required Determination, Issued August 2, 2005
- 26) No Construction Permit Required Determination, Issued March 29, 2006
- 27) No Construction Permit Required Determination, Issued May 24, 2006
- 28) No Construction Permit Required Determination, Issued July 21, 2006
- 29) No Construction Permit Required Determination, Issued November 21, 2006
- 30) Construction Permit 122009-002, Issued December 2, 2009
- 31) Construction Permit 122010-011, Issued December 17, 2010

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program has determined the following requirements to not be applicable to this installation at this time for the reasons stated.

10 CSR 10-6.100 *Alternate Emission Limits* is not applicable because the installation is in an ozone attainment area.

10 CSR 10-6.345 *Control of NO_x Emissions From Upwind Sources* is not applicable to the installation because it is located in Randolph county which is not one of the counties which the rule applies to.

10 CSR 10-6.350 *Emission Limitations and Emissions Trading of Oxides of Nitrogen* is not applicable to the installation because there is an exemption to the rule for facilities subject to 10 CSR 10-6.364, *Clean Air Interstate Rule Seasonal NO_x Trading Program*.

10 CSR 10-6.360 *Control of NO_x Emissions From Electric Generating Units and Non-Electric Generating Boilers* is not applicable to the installation because it is located in Randolph county which is not one of the counties which the rule applies to.

10 CSR 10-6.400 *Restriction of Emission of Particulate Matter From Industrial Processes* is not applicable to the installation because all grinding, crushing, and conveying operations at power plants are exempted within the rule.

Construction Permits

Construction Permit 0278-001, Issued February 6, 1978:

- ◆ This Prevention of Significant Deterioration (PSD) construction permit is for the installation of a coal fired electric generating unit with a wet-limestone scrubber and an electrostatic precipitator (ESP).
- ◆ Special Conditions 1 and 2 required the permittee to submit technical data regarding the scrubber and ESP by no later than September 1, 1978.
- ◆ Special Condition 3 limits EP01 Boiler 1 and EP02 Boiler 2 to eight lbs/MMBtu input for any three-hour period which is consistent with 10 CSR 10-6.260, Restriction of Emission of Sulfur Compounds for indirect heating sources. Only 10 CSR 10-6.260 was applied within the permit so as to avoid redundancy.

Construction Permit 0380-011, Issued March 20, 1980:

Construction Permit 0380-011A, Issued January 24, 1983:

Construction Permit 0380-011B, Issued September 23, 1987:

Construction Permit 0380-011C, Issued August 12, 1988:

- ◆ This de minimis construction permit is for the installation of a coal handling plant including a coal truck dump hopper, raw material conveyors and raw coal storage slot, plant feed conveyor and preparation plant.
- ◆ Amendment A changes Special Condition 3 by removing the requirement that the existing open air coal truck unloading dump discontinue use and instead limits the existing open air coal truck unloading dump to 750,000 tons of washed coal per year.
- ◆ Amendment B is a reevaluation of the PM₁₀ emissions from the installation based upon the promulgation of new EPA PM₁₀ standards. The amendment completely changes all special conditions.
- ◆ Amendment C supersedes all previous issuances of this construction permit and reflects changes already in place at the coal preparation plant.
- ◆ In an e-mail dated May 10, 2012, the permittee has stated that the equipment permitted under Construction Permit 0380-011C is no longer in operation; therefore, the conditions of this permit have not been added to the operating permit. If the permittee wishes to use this equipment in the

future, the permittee shall apply for a new construction permit. Operation of this equipment without a new construction permit is a violation.

Construction Permit 0181-002, Issued December 29, 1980:

- ◆ This construction permit is for an increase in production at the installation's coal mining operation.
- ◆ The special condition of this construction permit has been applied within this permit (see Permit Condition PW002).

Construction Permit 0493-017, Issued April 29, 1993:

Construction Permit 0493-017A, Issued August 30, 1993:

- ◆ This general construction permit is for necessary plant modifications to switch from high sulfur Missouri coal to low sulfur Wyoming coal. Modifications include: rail receipt of coal ~ six trains per week with 13,800 tons of coal per train, an enclosed rotary car dumper to remove coal from the train cars (the dumper building is equipped with a baghouse), three long term storage piles (two 9,000 ton piles and one 110,000 ton pile), all transfer points will be controlled by wet suppression, increasing the soot blowing capacity of the boilers, modifications to boiler cyclones, improvement to boiler igniters, replacement/modification of EP02 Boiler 2's ESP and a dry fly ash loading facility with dustless loaders.
- ◆ Amendment A removes a special condition requiring wet suppression control of transfer points onto and off of the radial stacker.
- ◆ Special Conditions 1 – 3 have been included within this permit (see Permit Condition PW001). Monitoring to demonstrate compliance with the operational limitation of baghouse control was included in the operating permit. The operating permit requires weekly monitoring of the pressure drop across the baghouse. If in the future the Air Pollution Control Program determines that the weekly measurements are not sufficient to demonstrate compliance, more frequent monitoring may be required.

No Construction Permit Required Determination, Issued December 1, 1993:

- ◆ This no construction permit required determination allowed for a temporary coal transloading operation. When the installation switched to low sulfur Wyoming coal they needed to construct a rail spur to transport the coal directly to the plant; however, construction of the spur was delayed by the Interstate Commerce Commission. The rail spur has since been completed; therefore, the transloading operation is no longer necessary.

Construction Permit 0596-041, Issued May 24, 1996:

Construction Permit 0596-041A, Issued October 24, 2000:

- ◆ This de minimis construction permit is for the installation of an SO₃ injection system to EP03 Boiler 3 to improve ESP performance.
- ◆ Amendment A removes all special conditions due to decreased fuel sulfur content.

No Construction Permit Required Determination, Issued October 29, 1999:

- ◆ This no construction permit required determination is for an upgrade to the SO₃ injection system on EP03 Boiler 3. The upgrade includes a 1,200 scfm blower, two 42" diameter converters, a new 5" flex connector, a 5" flow orifice, and two new 300 pound feeder augurs. The new equipment will allow the permittee to increase the amount of SO₃ injected, thus increasing ESP effectiveness and reducing particulate emissions.

No Construction Permit Required Determination, Issued October 2, 2000:

- ◆ This no construction permit required determination is for the installation of a low-NO_x over-fire air system to EP02 Boiler 2 to reduce NO_x emissions.

No Construction Permit Required Determination, Issued September 6, 2001:

- ◆ This no construction permit required determination is for the installation of an ADA-249 iron injection system to EP01 Boiler 1 and EP02 Boiler 2 to improve slag behavior and retain heat on the boiler floor.

No Construction Permit Required Determination, Issued December 21, 2001:

- ◆ This no construction permit required determination is for the installation of low-NO_x over-fire air systems to EP01 Boiler 1 and EP03 Boiler 3 to reduce NO_x emissions.

Temporary Construction Permit 112002-006, Issued November 18, 2002:

- ◆ This temporary construction permit was for the use of a 1825 kW diesel generator.
- ◆ This permit expired December 31, 2002.

No Construction Permit Required Determination, Issued May 15, 2003:

- ◆ This no construction permit required determination is for the replacement of boiler tubes in EP03 Boiler 3 to reduce excessive slag build-up. Boiler tube replacement fixed project capital cost was estimated to be \$1,790,049 which is less than 50 percent of the initial boiler installation fixed project capital cost estimation of \$250,000,000.

No Construction Permit Required Determination, Issued January 6, 2005:

- ◆ This no construction permit required determination is for the replacement of a 2.4 MMBtu/hr fuel oil space heater and a 0.6 MMBtu/hr propane heater with two 1.0 MMBtu/hr fuel oil space heater and one 1.0 MMBtu/hr propane heater.

No Construction Permit Required Determination, Issued October 24, 2005:

- ◆ This no construction permit required determination is for the replacement of the stator for EP02 Boiler 2. Replacement was necessitated by an electrical fault in the general assembly. The stator replacement fixed project capital cost was estimated to be less than one percent of the initial boiler installation fixed project capital cost.

No Construction Permit Required Determination, Issued August 2, 2005:

- ◆ This no construction permit required determination is for the refurbishment of two 900 ton lime silos. The existing lime silos will now contain fly ash. Uncontrolled potential PM₁₀ emissions were calculated to be 144.5 ton/yr; therefore, the permittee was required to install and maintain baghouses on each of the silos.
- ◆ These silos are not owned nor operated by the permittee, but instead are controlled Headwaters. Headwaters uses the silos to store fly ash purchased from the permittee prior to transporting the fly ash to another location.

No Construction Permit Required Determination, Issued March 29, 2006:

- ◆ This no construction permit required determination is for the replacement of EP-02 Boiler 2 floor. The replacement included new boiler tubing, membrane, welded attachments, and slag tank necks

and occurred from the rear wall to the front wall header. Replacement was necessitated by 45 percent wall loss to tubes, cracks, torn membranes, and large dents caused by slag falls. The boiler floor replacement fixed project capital cost was estimated to be \$1,720,000 which is less than 50 percent of the initial boiler installation fixed project capital cost estimation of \$33,000,000.

No Construction Permit Required Determination, Issued May 24, 2006:

- ◆ This no construction permit required determination is for the installation of selective catalytic reduction (SCR) controls on EP-01, EP-02, and EP-03 Boilers to reduce NO_x emissions.

No Construction Permit Required Determination, Issued July 21, 2006:

- ◆ This no construction permit required determination is for the replacement of the cyclone burners on EP-01 and EP-02 Boilers. Replacement was necessitated by 37 years of use which resulted in accumulations of coal ash and slag within the metal casing surrounding the inlet header and the barrel tubes. The ash and slag combined with water from leaking tubes to corrode the cyclone barrel tubes. The corrosion has decreased the tube wall thickness from 0.25” to 0.1”. In addition to the new cyclone barrel tubes, re-entry throat tubes, inlet/outlet/intermediate headers, upper and lower neck headers, and shut-off and control dampers were also replaced. The cyclone burner replacement fixed project capital cost was estimated to be \$10,000,000 for Boiler 1 and \$15,000,000 for Boiler 2, approximately 2.8 percent of the initial boiler installation fixed project capital cost estimate for each boiler.

No Construction Permit Required Determination, Issued November 21, 2006:

- ◆ This no construction permit required determination is for an additional fly-ash emission point. The fly-ash ductwork will be extended 100 ft and the new load-out point will be controlled using a 99 percent efficient baghouse. Uncontrolled potential PM₁₀ emissions were calculated to be 7.0 lb/hr; therefore, the permittee is required to install and maintain a baghouse (see Permit Condition 016).

Construction Permit 122009-002, Issued December 2, 2009:

- ◆ This de minimis construction permit is for the installation of a CyClean process to reduce mercury emissions from EP-01 and EP-02 Boilers. CyClean is a coal additive which improves sub-bituminous coal combustion.
- ◆ Special Conditions 1.A, 1.B, and 1.C were superseded by Construction Permit 122010-011.
- ◆ Special Conditions 1.D and 3 have been applied within this permit (see Permit Condition 002).
- ◆ Special Condition 1.E required reporting of exceedances of special conditions 1.A and 1.B which have been superseded.
- ◆ Special Condition 1.F allowed the permittee to remove special conditions 1.A, 1.B, and 1.C upon issuance of a PSD permit. The permittee applied for and received PSD permit 122010-011.
- ◆ Special Condition 2 required an evaluation study be performed on the CyClean additive. The results of the evaluation study have already been submitted to the Air Pollution Control Program.

Construction Permit 122010-011, Issued December 17, 2010:

- ◆ This PSD permit revises the CO emission limits of Construction Permit 122009-002.
- ◆ Special Condition 1 states that the conditions of this PSD permit supersede Special Condition 1.A, 1.B, and 1.C of Construction Permit 122009-002.
- ◆ Special Conditions 2 – 5 have been applied within this permit (see Permit Condition 017).

New Source Performance Standards (NSPS) Applicability

40 CFR Part 60, Subpart D - *Standards of Performance for Fossil-Fuel-Fired Steam Generators* is applicable to EP03 Boiler 3 and has been applied within this permit (see Permit Conditions 003 and 006). As this NSPS was proposed prior to November 15, 1990, and Boiler 3 needs an ESP to meet the emission limitation, Boiler 3 is subject to 40 CFR Part 64 *Compliance Assurance Monitoring*.

[\$64.2(b)(1)(i)] This regulation is applicable to fossil-fuel-fired steam generating units with a heat input rate greater than 250 MMBtu/hr constructed after August 17, 1971. [\$60.40(a) and (c)] EP01, EP02, and EP04 Boilers were constructed in 1966, 1969, and 1966, respectively. EP05 Boilers are each rated at 155.6 MMBtu/hr.

40 CFR Part 60, Subparts Da, Db, and Dc - *Standards of Performance for Electric Utility Steam Generating Units; Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units; and Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* are not applicable to the installation and have not been applied within this permit. Subpart Da applies to steam generating units with a heat input rate greater than 250 MMBtu/hr constructed after September 18, 1978. [\$60.40a(a)(2)] Subpart Db is only applicable to steam generating units with a heat input rate greater than 100 MMBtu/hr constructed after June 19, 1984. [\$60.40b(a)] Subpart Dc is only applicable to steam generating units with a heat input rate greater than 10 MMBtu/hr constructed after June 9, 1989. [\$60.40c(a)] EP01, EP02, EP03, and EP04 Boilers were constructed in 1966, 1969, 1966, and 1977, respectively. EP05 Boilers are not subject to Subpart Da because they are rated below 250 MMBtu/hr and they are not subject to Subpart Db or Dc as they were constructed in 1981.

40 CFR Part 60, Subparts K, Ka, and Kb – *Standards of Performance for Storage Vessels* are not applicable to the installation and have not been applied within this permit. Subparts K and Ka are only applicable to storage vessels greater than 40,000 gallons in capacity constructed after June 11, 1973. [\$60.110(a) and §60.110a(a)] Subpart Kb is only applicable to storage vessels greater than 75 m³ (19,182 gallons) in capacity constructed after July 23, 1984. [\$60.110b(a)] The only tanks located at the installation that are larger than 19,182 gallons are IA-1 300,000 gallon Diesel Tank #105 and IA-25 (4) 30,000 gallon NH₃ storage tanks. Diesel has a maximum true vapor pressure of 0.016 psi [0.11 kPa] at 90°F (see AP-42 Table 7.1-2) which is less than 3.5 kPa; therefore, Tank #105 is exempt per §60.110b(b). Ammonia is not a volatile organic liquid (defined at §60.111b) as it is not a volatile organic compound.

40 CFR Part 60, Subpart Y - *Standards of Performance for Coal Preparation Plants* is applicable to EP09A – EP09H Coal Conveying and EP10A Coal Crushing and Conditioning and has been applied within this permit (see Permit Condition 004).

40 CFR Part 60, Subpart IIII - *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* is not applicable to the installation and has not been applied within this permit. This regulation is applicable to stationary internal combustion engines constructed after July 11, 2005. [\$60.4200(a)(2)] EP07A, EP07B, and EP07C Emergency Engines were constructed in 1964, 1979, and 1979, respectively.

Maximum Achievable Control Technology (MACT) Applicability

40 CFR Part 63, Subpart ZZZZ - *National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* is applicable to the installation and has been applied within this permit (see Permit Condition 015). The regulation is not applicable to EP07B Emergency Diesel Generator For Boiler 3 per §63.6590(b)(3)(iii) since EP07B is an existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

40 CFR Part 63, Subpart DDDDD – *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler MACT)*:

- ◆ On December 23, 2011, EPA published a reconsideration proposal for the Boiler MACT.
- ◆ On February 7, 2012, EPA issued a No Action Assurance Letter establishing that EPA will exercise enforcement discretion to not pursue enforcement action for violations of certain notification deadlines within the Boiler MACT. EPA intends to issue the final reconsideration of the Boiler MACT prior to the compliance dates for existing sources. To view the No Action Assurance Letter visit: http://www.epa.gov/ttn/atw/boiler/boiler_ciswi-no_action_2012-02-07.pdf
- ◆ For the latest information on the implementation of the Boiler MACT visit: <http://www.epa.gov/ttn/atw/boiler/boilerpg.html>

40 CFR Part 63 Subpart UUUUU – *National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units* is applicable to the installation and has been applied within this permit (see Permit Condition 007). The standards applied within this operating permit are those promulgated February 16, 2012, as corrected April 19, 2012. If these standards should later be delayed, amended, or replaced, the permittee shall comply with the delayed, amended, or replacement standards. If the standards are rescinded the permittee shall no longer be required to comply with Permit Condition 007. The permittee may apply for an extension allowing up to one additional year to comply with the standards of this subpart under §112(i)(3)(B) of the Clean Air Act. This regulation may be referenced at: <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr;rgn=div2;view=text;node=20120216%3A1.39;idno=40;sid=2f855bec0f4672d6c1d1a215692c69e1;cc=ecfr;start=1;size=25>

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

40 CFR Part 61, Subpart M – *National Emission Standards for Asbestos* is applicable to the installation and has been applied within this permit (see Section IV. Core Permit Requirements).

Compliance Assurance Monitoring (CAM) Applicability

40 CFR Part 64, *Compliance Assurance Monitoring (CAM)*

The CAM rule applies to each pollutant specific emission unit that:

- ◆ Is subject to an emission limitation or standard, and
- ◆ Uses a control device to achieve compliance, and
- ◆ Has pre-control emissions that exceed or are equivalent to the major source threshold.

CAM is applicable to EP01, EP02, and EP03 Boilers. (See Permit Condition 006).

- ◆ Emission limitation or standard:
 - ◆ 0.18 lbs/MMBtu PM under 10 CSR 10-6.405(3)(D) – EP01 and EP 02 Boilers
 - ◆ 0.10 lbs/MMBtu PM under 40 CFR 60.42(a)(1) – EP03 Boiler 3
- ◆ Control device necessary to achieve compliance:
 - ◆ CD01 ESP – EP01 Boiler 1
 - ◆ CD02 ESP – EP02 Boiler 2
 - ◆ CD03 ESP – EP03 Boiler 3
- ◆ Pre-control potential emissions of each boiler exceed the 100 tons/yr PM major source threshold.

Greenhouse Gas Emissions

This installation is a major source for greenhouse gases. Major stationary sources are required by the Clean Air Act to obtain Part 70 operating permits. While Part 70 permits generally do not establish new emissions limits, they consolidate applicable requirements, as defined in Missouri State Regulations 10 CSR 10-6.020(2)(A)23, into a comprehensive air permit. At the time of permit issuance, there were no applicable GHG requirements for this source.

Note that this source is subject to 40 CFR Part 98 - *Mandatory Greenhouse Gas Reporting Rule*. However, the preamble of the GHG Reporting Rule clarifies that Part 98 requirements do not have to be incorporated in Part 70 permits operating permits at this time. In addition, Missouri regulations do not require the installation to report CO₂ emissions in their Missouri Emissions Inventory Questionnaire. An estimate of CO₂ emissions have been included within the installation's updated potential to emit (see the Other Regulatory Determinations section within this Statement of Basis). The applicant is required to report CO₂ emissions data directly to EPA starting with the 2010 calendar year.

The installation's 2010 CO₂e emissions as reported to EPA were 7,756,320.85 tons. Additional CO₂e information is available at: <http://epa.gov/climatechange/emissions/ghgdata/>

Other Regulatory Determinations

The Missouri Department of Natural Resources considers "reasonable effort" (as referred to in Permit Condition PW001 Operational Limitation 4) to be visual inspection by climbing a short distance on a ladder.

40 CFR Part 97 *Cross-State Air Pollution Rule (CSAPR)*:

- ◆ On December 30, 2011, the United States Court of Appeals for the D.C. Circuit issued its ruling to stay the CSAPR pending judicial review. The court's decision is not a decision on the merits of the rule.
- ◆ On January 10, 2012, EPA returned the vintage 2012 CAIR allowances to allowance accounts. Additional allocations of 2012 allowances will be done as soon as the allocation files are submitted to EPA by the states. If market participants wish to use the CAMD Business System to record transfers of the CSAPR allowances or to record other CSAPR related information, they may do so although they are not required to at this time.
- ◆ On January 26, 2012, EPA signed a notice, which will be published in the Federal Register, indicating that the Agency will not require compliance with the CSAPR supplemental rule while the

stay is in effect. EPA finalized the supplemental rule on December 15, 2011 to include Missouri in the ozone season NO_x program in the CSAPR.

- ◆ On February 7, 2012, EPA issued two sets of minor adjustment to the CSAPR. The adjustments provide flexibility to states by increasing budgets in seventeen states and easing limits on market-based compliance options.
- ◆ For the latest information on the implementation of CSAPR visit:
<http://www.epa.gov/crossstaterule/bulletins.html>

10 CSR 10-6.220 *Restriction of Emission of Visible Air Contaminants* is applicable to the installation and has been applied within this permit (see Permit Conditions 008 and 009). EP07A, EP07B, and EP07C Emergency Engines are exempt from this regulation per 10 CSR 10-6.220(1)(A) as they are internal combustion engines. EP03 Boiler and EP09A - EP09H, and EP10A Coal Preparation Plant are exempt from this regulation per 10 CSR 10-6.220(1)(H) as they are regulated by 40 CFR Part 60, Subparts D and Y, respectively. This regulation is applicable to EP04 Boiler and EP06A – EP06G Space Heaters but was not applied within this permit. EP04 Boiler and EP06A – EP06G Space Heaters have potential particulate emission below 0.5 lb/hr and are assumed to always be in compliance with this regulation while being properly maintained and operated; therefore, there are no monitoring, recordkeeping, or reporting conditions at this time. This regulation is applicable to FE1 - FE3 and FE5 - FE7 Coal/Fly Ash Operations but has not been applied within the permit. As fugitive emission sources, FE1 - FE3 and FE5 - FE7 are not expected to exceed the six minute 60 percent opacity exception within 10 CSR 10-6.220(3)(B); therefore, no monitoring, recordkeeping, or reporting is required at this time. If during a future inspection an incident of excessive opacity is noted from EP04, EP06A – EP06G, FE1 – FE3, or FE5 – FE7 the Air Pollution Control Program may require monitoring, recordkeeping, and reporting requirements to resolve the opacity issue.

10 CSR 10-6.260 *Restriction of Emission of Sulfur Compounds* is applicable to the installation and has been applied within this permit (see Permit Conditions 010, 011, and 012). This regulation is not applicable to EP06A - EP06E Space Heaters as emission sources exclusively combusting propane are exempt per 10 CSR 10-6.260(1)(A)2.

10 CSR 10-6.405 *Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating* is applicable to the installation and has been applied within this permit (see Permit Conditions 005 and 006). EP06A - EP06E Space Heaters are exempt from this regulation per 10 CSR 10-6.405(1)(C) as they exclusively combust propane; however, they are required to be included in the calculation to determine Q per 10 CSR 10-6.405(1)(D).

An updated Potential to Emit for the installation is shown in the table below:

Pollutant	Potential to Emit (tons per year) ¹
CO	20,037.81
CO _{2e}	18,847,432.07
NH ₃	307.34
NO _x	89,528.39
PM CON	1,348.38
Filterable PM ₁₀	783.54
Filterable PM _{2.5}	141.43
SO _x	29,498.89
VOC	284.55
HAP	4,891.15
Hydrogen Chloride (7647-01-0)	4,316.76
Hydrogen Fluoride (7664-39-3)	539.60
Formaldehyde (50-00-0)	22.81
Cyanide (20-09-7)	8.99
Benzene (71-43-2)	4.68
Methanol (67-56-1)	3.13
Benzyl Chloride (100-44-7)	2.52
Isophorone (78-59-1)	2.09
Acetaldehyde (75-07-0)	2.05
Methyl Chloride (74-87-3)	1.91
Propionaldehyde (123-38-6)	1.37
Polycyclic Organic Compounds (TP15)	1.23
Methylene Chloride (75-09-2)	1.04
Toluene (108-88-3)	0.86
Methylhydrazine (60-34-4)	0.61
Methyl Bromide (74-83-9)	0.58
Carbon Disulfide (75-15-0)	0.47
Ethylbenzene (100-41-4)	0.34
Bis(2-Ethylhexyl)Phthalate (DEHP) (117-81-7)	0.26
Hexane (110-54-3)	0.24

¹ Potential emissions are based upon 8,760 hours of uncontrolled annual operation unless otherwise noted:

- ◆ EP01, EP02, and EP03 were given 98% PM₁₀ control due to ESPs required by Permit Condition 006.
- ◆ EP08A, EP08B, EP09A – EP09H, EP10A, and EP11A – EP11C were given 99% PM₁₀ control due to baghouses required by Permit Conditions PW001 and 016.
- ◆ FE01 – FE03 and FE05 – FE07 were given 50% PM₁₀ control due to Best Management Practices/watering required by Permit Conditions PW001 and PW002.
- ◆ EP01, EP02, and EP03 may combust Subbituminous/Bituminous Coal or Fuel Oil #2. Coal was determined to be the worst case fuel for CO, CO_{2e}, NO_x, PM CON, PM₁₀, PM_{2.5}, SO_x, VOC, HAP, Hydrogen Chloride, Hydrogen Fluoride, Cyanide, Benzene, Benzyl Chloride, Isophorone, Acetaldehyde, Methyl Chloride, Propionaldehyde, Methylene Chloride, Toluene, Methylhydrazine, Methyl Bromide, Carbon Disulfide, Ethylbenzene, DEHP, and Hexane. Oil was determined to be the worst case fuel for NH₃, Formaldehyde, and TP15.
- ◆ EP07A – EP07C were evaluated at 500 hours of annual operation due to their emergency-use only status.

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis

Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:

- 1) The specific pollutant regulated by that rule is not emitted by the installation;
- 2) The installation is not in the source category regulated by that rule;
- 3) The installation is not in the county or specific area that is regulated under the authority of that rule;
- 4) The installation does not contain the type of emission unit which is regulated by that rule;
- 5) The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the Air Pollution Control Program's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the Air Pollution Control Program a schedule for achieving compliance for that regulation(s).

Prepared by:

Alana L. Rugen, EIT
Environmental Engineer II

CERTIFIED MAIL: 70041350000314154042
RETURN RECEIPT REQUESTED

Mr. Kevin Murphy
AECI Thomas Hill Energy Center, Power Division
5693 Hwy F
Clifton Hill, MO 65244

Re: AECI Thomas Hill Energy Center, Power Division, 175-0001
Permit Number: OP2010-126A

Dear Sir:

Enclosed with this letter is your amended Part 70 operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

Your operating permit was amended to incorporate construction permit 122010-011, issued December 17, 2010. The operating permit was also updated to conform with current regulations and Air Pollution Control Program policy.

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.078.16 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you have any questions or need additional information regarding this permit, please do not hesitate to contact Alana Rugen at the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael J. Stansfield, P.E.
Operating Permit Unit Chief

MJS:ark

Enclosures

c: Northeast Regional Office
PAMS File: 2011-05-071