



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES
Air Pollution Control Program

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: OP2017-061
Expiration Date: AUG 11 2022
Installation ID: 175-0001
Project Number: 2015-06-024

Installation Name and Address

Thomas Hill Energy Center
5693 Highway 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

Installation Description:

AECI 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 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. Fly-ash unloading, hauling and disposal operations are also on site. The installation is a major source of Carbon Monoxide (CO), Greenhouse Gases (CO₂e), Nitrogen Oxides (NO_x), Particulate Matter less ≤ 10 microns and ≤ 2.5 microns (PM₁₀ and PM_{2.5}), Sulfur Oxides (SO_x), Volatile Organic Compounds (VOCs) and Hazardous Air Pollutants (HAPs), including individual HAPs: Hydrogen Chloride, Hydrogen Fluoride, and Formaldehyde.

Prepared by
Jill Wade, P.E.
Operating Permit Unit

Director or Designee
Department of Natural Resources

AUG 11 2017

Effective Date

Table of Contents

I. INSTALLATION EQUIPMENT LISTING	4
EMISSION UNITS WITH LIMITATIONS.....	4
EMISSION UNITS WITHOUT SPECIFIC LIMITATIONS.....	4
II. PLANT WIDE EMISSION LIMITATIONS.....	6
PERMIT CONDITION PW001	6
10 CSR 10-6.060 Construction Permits Required.....	6
Construction Permit 0493-017A, Issued August 30, 1993.....	6
III. EMISSION UNIT SPECIFIC EMISSION LIMITATIONS	8
PERMIT CONDITION 001	8
10 CSR 10-6.060 Construction Permits Required.....	8
Construction Permit 0181-002, Issued December 29, 1980.....	8
Construction Permit 012013-001A, Issued March 24, 2014.....	8
HAUL ROADS.....	8
PERMIT CONDITION 002.....	9
10 CSR 10-6.060 Construction Permits Required.....	9
Construction Permit 122009-002, Issued December 2, 2009.....	9
PERMIT CONDITION 003.....	10
10 CSR 10-6.070 New Source Performance Regulations	10
40 CFR Part 60, Subpart D - Standards of Performance for Fossil-Fuel-Fired Steam Generators	10
PERMIT CONDITION 004.....	12
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants	12
PERMIT CONDITION 005.....	13
10 CSR 10-6.060 Construction Permits Required.....	13
Construction Permit 122014-004A, Issued December 16, 2014.....	13
PERMIT CONDITION 006.....	14
10 CSR 10-6.070 New Source Performance Regulations	14
40 CFR Part 60, Subpart Y Standards of Performance for Coal Preparation Plants	14
PERMIT CONDITION 007.....	15
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	15
40 CFR Part 63, Subpart UUUUU – National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units	15
PERMIT CONDITION 008.....	22
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants	22
PERMIT CONDITION 009.....	23
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds.....	23
10 CSR 10-6.261 Control of Sulfur Dioxide.....	23
PERMIT CONDITION 010.....	25
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds.....	25
10 CSR 10-6.261 Control of Sulfur Dioxide.....	25
PERMIT CONDITION 011.....	26
10 CSR 10-6.261 Control of Sulfur Dioxide.....	26
PERMIT CONDITION 012.....	27
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds.....	27
PERMIT CONDITION 013.....	28
10 CSR 10-6.270 Acid Rain Source Permits Required.....	28
40 CFR Part 72, 73, and 75 through 78.....	28

PERMIT CONDITION 014.....	28
10 CSR 10-6.362 Clean Air Interstate Rule Annual NOx Trading Program	28
10 CSR 10-6.364 Clean Air Interstate Rule Seasonal NOx Trading Program.....	28
10 CSR 10-6.366 Clean Air Interstate Rule SOx Trading Program.....	28
PERMIT CONDITION 015.....	29
40 CFR Parts 70 and 97 Cross State Air Pollution Rule	29
10 CSR 10-6.372 Cross-State Air Pollution Rule Annual NOx Trading Allowance Allocations.....	29
10 CSR 10-6.374 Cross-State Air Pollution Rule Ozone Season NOx Trading Allowance Allocations....	29
10 CSR 10-6.376 Cross-State Air Pollution Rule Annual SO2 Trading Allowance Allocations	29
PERMIT CONDITION 016.....	41
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	41
40 CFR Part 63 Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.....	41
PERMIT CONDITION 017	45
10 CSR 10-6.070 New Source Performance Standards	45
40 CFR Part 60 Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.....	45
PERMIT CONDITION 018.....	47
10 CSR 10-6.020(2)(I)23. and 10 CSR 10-6.065(5)(C)2. Voluntary Limitation(s).....	47
No Construction Permit Required Determination, Issued November 21, 2006	47
PERMIT CONDITION 019.....	48
10 CSR 10-6.060 Construction Permits Required.....	48
Construction Permit 122010-011, Issued December 17, 2010	48
PERMIT CONDITION 020.....	49
10 CSR 10-6.020(2)(I)23. and 10 CSR 10-6.065(5)(C)2. Voluntary Limitation(s).....	49
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	49
40 CFR Part 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.....	49
PERMIT CONDITION 021	50
10 CSR 10-6.060 Construction Permits Required.....	50
Construction Permit 012013-001A, Issued March 24, 2014	50
PERMIT CONDITION 022.....	52
10 CSR 10-6.060 Construction Permits Required.....	52
Construction Permit 122014-004, Issued December 16, 2004	52
IV. CORE PERMIT REQUIREMENTS	54
V. GENERAL PERMIT REQUIREMENTS.....	59
VI. ATTACHMENTS	65
ATTACHMENT A	66
Visible Emissions Observations	66
ATTACHMENT B	67
Visible Emissions Observations	67
ATTACHMENT C	68
Method 9 Opacity Emissions Observations	68
ATTACHMENT D	69
Inspection/Maintenance/Repair/Malfunction Log.....	69
ATTACHMENT E.....	70
Acid Rain Permit.....	70
ATTACHMENT F	76
CAIR Permit.....	76

I. Installation Equipment Listing

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 of Emission Unit
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
EP09A	Coal Unloading
EP08B	Alternate Coal Unloading from Railcar or Trucks
EP09A-H	Coal Conveying
EP10A	Coal Crushing and Conditioning
EP11A	Fly Ash Loading to Tanker Trucks
EP11B	Fly Ash Loading (Alternate)
EP11C	Fly Ash Loading (Alternate)
EP11D	Units 1 and 2 Fly Ash Mixer Loadout
FE2	Fly Ash Hauling to Landfill
FE3A	Dump Truck Fly Ash Loadout
FE8	Disposal Area Fly Ash and Bulldozer Activity
FE10-11	Paved Haul Roads
HR21	Paved Haul Road
EP13	M45-PC Additive A2 Silo
EP14	M45-PC Additive A2 Feed Hopper
EP15	M45-PC Additive A2 Conveyor
EP16	PAC Silo 1
EP17	PAC Silo 2

EMISSION UNITS WITHOUT SPECIFIC LIMITATIONS

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

Description of Emission Source	
EP6A	0.99 MMBtu/hr Propane Space Heater – Unit 1 and 2 Intake Structure
EP6B	0.5 MMBtu/hr Propane Space Heater – Portable Unit
EP6C	1.2 MMBtu/hr Propane Space Heater – Transfer House #1
EP6D	1.2 MMBtu/hr Propane Space Heater – Transfer House #2
EP6E	1.2 MMBtu/hr Propane Space Heater – Transfer House #3
EP12	3,840 Gallon Unleaded Gasoline Storage Tank

FE4	Service Air De-Icing
IA-1	Fuel Storage Tanks (9,940 Gallon Diesel Tank #101; 8,460 Gallon Diesel Tank #102; 1,986 Gallon Diesel Tank #302; 14,350 Gallon Clean Oil Tank #030; 9,987 Gallon Diesel Tank #104; 300,000 Gallon Diesel Tank #105; 1,709 Gallon Diesel Tank #106; 117 Gallon Diesel Tank #107)
IA-2	992 Gallon Gasoline Tank #201; 289 Gallon Gasoline Tank #202
IA-3	Storage Tanks (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	Waste Oil Tanks (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% Concentrate Ethylene Glycol Storage Tanks
IA-6	1-Hydrazine (Closed Loop System, Removal of Dissolved Oxygen from Water)
IA-7	Asbestos Abatement Activities
IA-8	2-H ₂ SO ₄ Storage Tanks
IA-10	Transformers and Transformer Oil
IA-11	26-Chlorine Storage Tanks
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
IA-18	3-Hydrated 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	3-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 ₂ Storage Tanks for Units 1, 2, and 3 SCR Systems
IA-27	CyClean Coal Additive Operations
FE1	Coal Pile Maintenance and Operations at the Installation
FE3	Fly Ash Unloading to Landfill
FE5-7	Coal Pile Management

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. The plant wide conditions apply to all emission units at this installation. All emission units are listed in Section I under Emission Units with Limitations and Emission Units without Limitations.

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 problems¹ 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.

¹ "dusting problems" is defined for the purposes of permit condition PW001 as violating the opacity limit of 20% imposed by NSPS Subpart Y which is included in the operating permit under permit condition 005.

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.

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.

<p>PERMIT CONDITION 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 0181-002, Issued December 29, 1980 Construction Permit 012013-001A, Issued March 24, 2014</p>

Haul Roads	
Emission Unit	Description
FE10-11	Paved Haul Roads Fugitive Emissions
FE2	Fly Ash Hauling to Landfill: Disposal rout unpaved haul road; MHDR = 4.71 VMT

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. 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.

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: Coal and Fuel Oil Fired 1,882 MMBtu/hr; Constructed 1966
EP02	Boiler 2: Coal and Oil Fired: 2,970 MMBtu/hr; Constructed 1969

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.

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 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
EP03	Boiler 3: Coal and Oil Fired 7,000 MMBtu/hr; Constructed 1982

Standards:

1. 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. As an alternative to meeting the PM and opacity limits, the permittee that elects to install, calibrate, maintain and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions can petition the director to comply with §60.42Da(a) of subpart Da of this part. If the director grants the petition, the source will from then on (unless the unit is modified or reconstructed in the future) have to comply with the requirements in §60.42Da(a) of subpart Da of this part.
3. Except as provided under §60.43(d), 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)]
4. 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_{SO2} = Prorated standard for SO₂ 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)]

5. Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels. [§60.43(c)]
6. Except as provided under §60.44(e), the permittee shall not cause to be discharged into the atmosphere from any affected facility any gases that contain NO_x, expressed as NO₂ 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)]
7. 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)]

8. 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 Director 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 SO_2 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 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 004	
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants	
Emission Unit	Description
EP01	Boiler 1: Coal and Fuel Oil Fired 1,882 MMBtu/hr; Constructed 1966
EP02	Boiler 2: Coal and Oil Fired: 2,970 MMBtu/hr; Constructed 1969

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:

1. The permittee shall install, certify, operate and maintain a Continuous Opacity Monitoring System (COMS) according to the following conditions:
 - a) Source operating time includes any time fuel is being combusted and/or a fan is being operated;
 - b) Cycling times include the total time a monitoring system requires to sample, analyze and record an emission measurement. Continuous monitoring systems for measuring opacity shall complete a minimum of one (1) cycle of operation (sampling, analyzing, and data recording) for each successive ten (10)-second period;
 - c) All COMS shall be certified by the director after review and acceptance of a demonstration of conformance with 40 CFP Part 60, Appendix B, Performance Specification 1; and
 - d) All COMS shall be subject to audits conducted by the department.

Record Keeping:

1. The permittee shall retain a record of the following information in either hard copy or electronic form for a minimum of two (2) years from the date the data was collected:
 - a) All information reported in the quarterly summaries; and
 - b) All six (6)-minute averages and daily Quality Assurance (QA)/Quality Control (QC) records.
2. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
3. All records must be maintained for five years.

Reporting:

1. The permittee shall submit a quarterly written report to the director which shall be postmarked no later than the thirtieth day following the end of each calendar quarter and shall include the following emissions data:
 - a) A summary including total time for each cause of excess emissions and/or monitor downtime;
 - b) Nature and cause of excess emissions, if known;
 - c) The six (6)-minute average opacity values greater than the opacity emission requirements (The average of the values shall be obtained by using the procedures specified in the Reference Method used to determine the opacity of the visible emissions);

- d) The date and time identifying each period during which the COMS was inoperative (except for zero and span checks), including the nature and frequency of system repairs or adjustments that were made during these times; and
 - e) If no excess emissions have occurred during the reporting period and the COMS has not been inoperative, repaired or adjusted, this information shall be stated in the report.
2. The permittee shall notify the Air Pollution Control Program's Compliance/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 005	
10 CSR 10-6.060 Construction Permits Required	
Construction Permit 122014-004A, Issued December 16, 2014	
Emission Unit	Description
EP03	Boiler 3: Coal and Oil Fired 7,000 MMBtu/hr; Constructed 1982

Additive Usage Limitations:

1. Special Condition 2.A: The permittee shall limit Additive A1 usage to less than 0.082479 percent by weight of coal.
2. Special Condition 2.B: The permittee shall limit Additive A2 usage to less than 0.16499 percent by weight of coal.
3. Special Condition 2.C: The permittee shall limit Additive B usage to less than 5.5041 ppm by weight of coal.

Monitoring/Recordkeeping:

1. Special Condition 1.D: The permittee shall monitor the usage rate of each additive on a continuous basis using a programmable logic controller (PLC). The permittee shall observe and record the monitored value at least once each day to demonstrate compliance.
2. Special Condition 2.E: The permittee shall maintain records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include SDS for all materials associated with the M45-PC system.

Reporting:

1. Special Condition 2.F: The permittee shall report to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after an exceedance of any of the additive usage rates.
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 annual compliance certification required by Section V of this permit.

PERMIT CONDITION 006	
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
EP09A	Coal Conveying: MHDR = 350 tons/hour; Constructed 1964 and 1966
EP09B	Coal Conveying: MHDR = 4,000 tons/hour; Constructed 1992
EP09C	Coal Conveying: MHDR = 1,200 tons/hour; Constructed 1978 and 1972
EP09D	Coal Conveying: MHDR = 4,000 tons/hour; Constructed 1992
EP09E	Coal Conveying: MHDR = 1,600 tons/hour; Constructed 1978
EP09F	Coal Conveying: MHDR = 2,300 tons/hour; Constructed 1978
EP09G	Coal Conveying: MHDR = 4,000 tons/hour; Constructed 1992
EP09H	Coal Conveying: MHDR = 4,000 tons/hour; Constructed 1992
EP10A	Coal Conveying: MHDR = 700 tons/hour; Constructed 1993

Standards:

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, gases which exhibit 20 percent opacity or greater. [§60.254(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 (See Attachments B and C)
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 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 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
EP01	Boiler 1: Coal and Fuel Oil Fired 1,882 MMBtu/hr; Constructed 1966
EP02	Boiler 2: Coal and Oil Fired: 2,970 MMBtu/hr; Constructed 1969
EP03	Boiler 3: Coal and Oil Fired 7,000 MMBtu/hr; Constructed 1966

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 1966, 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).

Emission Limitations and Work Practice Standards:

- 1) The permittee must meet the emission limitations in Table 2 of 40 CFR Part 63 Subpart UUUUU that applies to existing sources listed below: [§63.9991(a)(1)]
- 2) The permittee must meet the applicable work practice standards in Table 3 of 40 CFR Part 63 Subpart UUUUU that applies to existing sources listed below: [§63.9991(a)(1)]

Table 2 to Subpart UUUUU of Part 63—Emission Limits for Existing EGUs

If your EGU is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 . . .
1. Coal-fired unit not low rank virgin coal	a. Filterable particulate matter (PM)	.030 lb/MMBtu or 0.30 lb/MWh. ²	Collect a minimum of 1 dscm per run.
	OR	OR	
	Total non-Hg HAP metals	0.00005 lb/MMBtu or 0.50 lb/GWh.	Collect a minimum of 1 dscm per run.
	OR	OR	
	Individual HAP metals:		Collect a minimum of 3 dscm per run.
	Antimony (Sb)	0.801 lb/TBtu or 0.008 lb/GWh.	
	Arsenic (As)	1.1 lb/TBtu or 0.020 lb/GWh.	
	Beryllium (Be)	0.20 lb/TBtu or 0.0020 lb/GWh.	
	Cadmium (Cd)	0.30 lb/TBtu or 0.0030 lb/GWh.	
	Chromium (Cr)	2.8 lb/TBtu or 0.030 lb/GWh.	
	Cobalt (Co)	0.80 lb/TBtu or 0.0080 lb/GWh.	
	Lead (Pb)	1.2 lb/TBtu or 0.020 lb/GWh.	
	Manganese (Mn)	4.0 lb/TBtu or 0.050 lb/GWh.	
	Nickel (Ni)	3.5 lb/TBtu or 0.040 lb/GWh.	
	Selenium (Se)	5.0 lb/TBtu or 0.060 lb/GWh.	
	b. Hydrogen chloride (HCl)	0.0020 lb/MMBtu or 0.020 lb/MWh.	For Method 26A, collect a minimum of 0.75 dscm per run; for Method 26, collect a minimum of 120 liters per run.

If your EGU is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 . . .
			For ASTM D6348-03 ³ or Method 320, sample for a minimum of 1 hour.
	OR		
	Sulfur dioxide (SO ₂) ⁴	0.20 lb/MMBtu or 1.5 lb/MWh.	SO ₂ CEMS.
	c. Mercury (Hg)	1.2 lb/TBtu or 0.0130 lb/GWh	LEE Testing for 30 days with 10 days maximum per Method 30B run or Hg CEMS or sorbent trap monitoring system only.

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

²Gross output.

³Incorporated by reference, see §63.14.

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

Table 3 to Subpart UUUUU of Part 63 – Work Practice Standards

If your EGU is . . .	You must meet the following . . .
An existing EGU	Conduct a tune-up of the EGU burner and combustion controls at least each 36 calendar months, or each 48 calendar months if neural network combustion optimization software is employed, as specified in §63.10021(e).
A coal-fired, liquid oil-fired (excluding limited-use liquid oil-fired subcategory units), or solid oil-derived fuel-fired EGU during startup	<p>a. You have the option of complying using either of the following work practice standards:</p> <p>(1) If you choose to comply using paragraph (1) of the definition of “startup” in §63.10042, you must operate all CMS during startup. Startup means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on site use). For startup of a unit, you must use clean fuels as defined in §63.10042 for ignition. Once you convert to firing coal, residual oil, or solid oil-derived fuel, you must engage all of the applicable control technologies except dry scrubber and SCR. You must start your dry scrubber and SCR systems, if present, appropriately to comply with relevant standards applicable during normal operation. You must comply with all applicable emissions limits at all times except for periods that meet the applicable</p>

	<p>definitions of startup and shutdown in this subpart. You must keep records during startup periods. You must provide reports concerning activities and startup periods, as specified in §63.10011(g) and §63.10021(h) and (i).</p>
	<p>(2) If you choose to comply using paragraph (2) of the definition of “startup” in §63.10042, you must operate all CMS during startup. You must also collect appropriate data, and you must calculate the pollutant emission rate for each hour of startup.</p>
	<p>For startup of an EGU, you must use one or a combination of the clean fuels defined in §63.10042 to the maximum extent possible, taking into account considerations such as boiler or control device integrity, throughout the startup period. You must have sufficient clean fuel capacity to engage and operate your PM control device within one hour of adding coal, residual oil, or solid oil-derived fuel to the unit. You must meet the startup period work practice requirements as identified in §63.10020(e).</p>
	<p>Once you start firing coal, residual oil, or solid oil-derived fuel, you must vent emissions to the main stack(s). You must comply with the applicable emission limits beginning with the hour after startup ends. You must engage and operate your particulate matter control(s) within 1 hour of first firing of coal, residual oil, or solid oil-derived fuel.</p>
	<p>You must start all other applicable control devices as expeditiously as possible, considering safety and manufacturer/supplier recommendations, but, in any case, when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than this Subpart that require operation of the control devices.</p>
	<p>b. Relative to the syngas not fired in the combustion turbine of an IGCC EGU during startup, you must either: (1) Flare the syngas, or (2) route the syngas to duct burners, which may need to be installed, and route the flue gas from the duct burners to the heat recovery steam generator.</p>
	<p>c. If you choose to use just one set of sorbent traps to demonstrate compliance with the applicable Hg emission limit, you must comply with the limit at all times; otherwise, you must comply with the applicable emission limit at all times except for startup and shutdown periods.</p>
	<p>d. You must collect monitoring data during startup periods, as specified in §63.10020(a) and (e). You must keep records during startup periods, as provided in §§63.10032 and 63.10021(h). You must provide reports concerning activities and startup periods, as specified in §§63.10011(g), 63.10021(i), and 63.10031.</p>
A coal-fired, liquid oil-fired	<p>You must operate all CMS during shutdown. You must also collect</p>

<p>(excluding limited-use liquid oil-fired subcategory units), or solid oil-derived fuel-fired EGU during shutdown</p>	<p>appropriate data, and you must calculate the pollutant emission rate for each hour of shutdown for those pollutants for which a CMS is used. While firing coal, residual oil, or solid oil-derived fuel during shutdown, you must vent emissions to the main stack(s) and operate all applicable control devices and continue to operate those control devices after the cessation of coal, residual oil, or solid oil-derived fuel being fed into the EGU and for as long as possible thereafter considering operational and safety concerns. In any case, you must operate your controls when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than this Subpart and that require operation of the control devices.</p>
	<p>If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel must be one or a combination of the clean fuels defined in §63.10042 and must be used to the maximum extent possible, taking into account considerations such as not compromising boiler or control device integrity.</p>
	<p>Relative to the syngas not fired in the combustion turbine of an IGCC EGU during shutdown, you must either: (1) Flare the syngas, or (2) route the syngas to duct burners, which may need to be installed, and route the flue gas from the duct burners to the heat recovery steam generator.</p>
	<p>You must comply with all applicable emission limits at all times except during startup periods and shutdown periods at which time you must meet this work practice. You must collect monitoring data during shutdown periods, as specified in §63.10020(a). You must keep records during shutdown periods, as provided in §§63.10032 and 63.10021(h). Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown. You must provide reports concerning activities and shutdown periods, as specified in §§63.10011(g), 63.10021(i), and 63.10031.</p>

General Requirements:

- 1) The permittee must be in compliance with the emission limits and operating limits 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 during periods of startup or shutdown. [§63.10000(a)]
- 2) At all times the permittee must operate and maintain the affected sources, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [§63.10000(b)]

Demonstrating Continuous Compliance/Monitoring:

- 1) The permittee shall comply with all monitoring, installation, operation and maintenance requirements as specified in §63.10010 of Subpart UUUUU.

- 2) The permittee shall monitor and collect data to demonstrate compliance according to the methods required in §63.10020 of Subpart UUUUU.
- 3) The permittee shall demonstrate continuous compliance with each emissions limit, operating limit, and work practice standard in Tables 2 through 4 to 40 CFR Part 63, Subpart UUUUU that applies, according to the monitoring specified in Table 7 to 40 CFR Part 63, Subpart UUUUU and §63.10021(b) through (g). [§63.10021(a)]

Table 7 to Subpart UUUUU of Part 63—Demonstrating Continuous Compliance

If you use one of the following to meet applicable emissions limits, operating limits, or work practice standards . . .	You demonstrate continuous compliance by . . .
Quarterly performance testing for coal-fired, solid oil derived fired, or liquid oil-fired EGUs to measure compliance with one or more non-PM (or its alternative emission limits) applicable emissions limit in Table 1 or 2, or PM (or its alternative emission limits) applicable emissions limit in Table 2	Calculating the results of the testing in units of the applicable emissions standard.
Conducting periodic performance tune-ups of your EGU(s)	Conducting periodic performance tune-ups of your EGU(s), as specified in §63.10021(e).
Work practice standards for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs during startup	Operating in accordance with Table 3.
Work practice standards for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs during shutdown	Operating in accordance with Table 3.

- 4) If the permittee uses quarterly performance testing to demonstrate compliance with one or more applicable emissions limits in Table 2 to 40 CFR Part 63, Subpart UUUUU, the permittee [§63.10021(d)]
 - a) May skip performance testing in those quarters during which less than 168 boiler operating hours occur, except that a performance test shall be conducted at least once every calendar year. [§63.10021(d)(1)]
 - b) Shall conduct the performance test as defined in Table 5 to 40 CFR part 63, Subpart UUUUU and calculate the results of the testing in units of the applicable emissions standard; and [§63.10021(d)(2)]
- 5) Notwithstanding the provisions of §63.10021(d)(1), the permittee must complete performance tests for the EGU with at least 45 calendar days, measured from the test’s end date, separating performance tests conducted every quarter. [§63.1006(f)(i)]

Recordkeeping:

- 1) The permittee shall keep records as required by §63.10032 of Subpart UUUUU including:
 - a) Maintain a copy of each notification and report submitted to comply with this subpart;
 - b) Records of performance stack test, fuel analyses or other compliance demonstrations and performance evaluations as required in §63.10(b)(2)(viii);
 - c) Keep record required in Table 7 to subpart UUUUU including records of all monitoring data;
 - d) Records of monthly fuel use by each unit, including the type(s) of fuel and amount(s) used;
 - e) For an EGU that qualifies as an LEE under §63.10005(h), the permittee must keep annual records that document that the emissions in the previous stack test(s) continue to qualify the unit for LEE status for an applicable pollutants, and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emission of the pollutant to increase within the past year;

- f) Records pertaining to startup and shutdown;
 - g) Records of the occurrence and duration of each malfunction of an operation or the air pollution control and monitoring equipment;
 - h) Records of actions taken during periods of malfunction to minimize emission in accordance with §63.100000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation; and
 - i) Records of the type and amount of fuel used during each startup or shutdown.
- 2) The records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). [§63.10033(a)]
 - 3) As specified in § 63.10(b)(1), the permittee must keep each record for five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§6310033(b)]
 - 4) The permittee must keep each record on site for at least two (2) years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). Records can be kept off-site for the remaining 3 years. [§6310033(c)]
 - 5) Records shall be retained in either hard copy or electronic form.

Notifications and Reporting:

- 1) The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by Section V of this permit.
- 2) The permittee shall submit applicable notifications as required by §63.10030 of Subpart UUUUU.
- 3) The permittee shall submit all reports in Table 8 of Subpart UUUUU that are applicable: [§63.10031]

Table 8 to Subpart UUUUU of Part 63—Reporting Requirements

You must submit a	The report must contain . . .	You must submit the report . . .
Compliance report	a. Information required in §63.10031(c)(1) through (9); and	Semiannually according to the requirements in §63.10031(b).
	b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 3 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, and operating parameter monitoring systems, were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and	
	c. If you have a deviation from any emission limitation (emission	

	limit and operating limit) or work practice standard during the reporting period, the report must contain the information in §63.10031(d). If there were periods during which the CMSs, including continuous emissions monitoring systems and continuous parameter monitoring systems, were out-of-control, as specified in §63.8(c)(7), the report must contain the information in §63.10031(e).	
--	---	--

PERMIT CONDITION 008	
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants	
Emission Unit	Description
EP05	Auxiliary Boilers AB3A & AB3B: 155.6 MMBtu/hour each; #2 Fuel Oil Fired; Constructed 1981
EP08A	Coal Unloading: MHDR = 1,500 tons/hour; Constructed 1992
EP08B	Alternate Coal Unloading From Railcar Or Trucks: MHDR = 1,500 tons/hour; Constructed 1965
EP11A	Fly Ash Loading To Tanker Trucks: MHDR = 132 tons/hour; Constructed 1993
EP11B & C	Fly Ash Loading (Alternate): MHDR = 132 tons/hour: Constructed 1964 and 1966
EP11D	Units 1 and 2 Fly Ash Mixer Loadout; Constructed 2012
EP14	M45-PC Additive A2 Feed Hopper
EP15	M45-PC Additive A2 Conveyor
EP16	PAC Silo 1
EP17	PAC Silo 2

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 visible emissions observations on these emission units using U.S. EPA Test Method 22-like procedures. Observations 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 report to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any limitation established by this permit condition.
- 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 annual compliance certification required by Section V of this permit.

PERMIT CONDITION 009	
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds 10 CSR 10-6.261 Control of Sulfur Dioxide	
Emission Unit	Description
EP04	Auxiliary Boiler AB1: 12.6 MMBtu/hr; #2 Fuel Oil Fired; Constructed 1966
EP05	Auxiliary Boilers AB3A & AB3B: 155.6 MMBtu/hour each; #2 Fuel Oil Fired; Constructed 1981
EP06F	Space Heater – Sample Building: 2.4 MMBtu/hr; #2 Fuel Oil Fired;
EP06G	Space Heater – Unit 1 and 2 Crusher House: 2.4 MMBtu/hr; #2 Fuel Oil Fired;

Emission Limitation:

The permittee shall not cause or allow emissions of SO₂ into the atmosphere from EP04, EP05, EP06F and EP06G 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/Recordkeeping:

1. The permittee shall retain the calculations in the statement of basis 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 0.05 weight percent.
3. The permittee shall determine compliance using fuel delivery records, fuel sampling and analysis, performance tests, continuous emission monitoring, or other compliance methods approved by the staff director and the U.S. Environmental Protection agency and incorporated into the state implementation plan.
4. The permittee must report any excess emissions other than startup, shutdown and malfunction excess emissions to the staff director for each calendar quarter within thirty (30) days following the end of the quarter. In all cases, the notification must be a written report and must include, at a minimum, the following:
 - a) Name and location of source;
 - b) Name and telephone number of person responsible for the source;
 - c) Identity and description of the equipment involved;
 - d) Time and duration of the period of excess emissions;
 - e) Type of activity;
 - f) Estimate of the magnitude of the excess emissions expressed in the units of the applicable emission control regulation and the operating data and calculations used in estimating the magnitude;
 - g) Measures taken to mitigate the extent and duration of the excess emissions; and
 - h) Measures taken to remedy the situation which cause the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
5. The permittee must maintain a list of modifications to the source's operating procedures or other routine procedures instituted to prevent or minimize the occurrence of any excess emissions.
6. The permittee must maintain a record of data, calculations, results, records and reports from any performance test, continuous emission monitoring, fuel deliveries, and/or fuel sampling tests.
7. The permittee must maintain a record of any applicable monitoring data, performance evaluations, calibration checks, monitoring system and device performance tests, and any adjustments and maintenance performed on these systems or devices.
8. The permittee of sources using fuel delivery records for compliance must also maintain the fuel supplier information to certify all fuel deliveries. Bills of lading and/or other fuel deliver documentation containing the following information for all fuel purchases or deliveries are deemed acceptable to comply with the requirements of this rule:
 - a) The name, address, and contact information of the fuel supplier;
 - b) The type of fuel; and
 - c) The sulfur content or maximum sulfur content expressed in percent sulfur by weight or in ppm sulfur.
9. The permittee of sources using fuel sampling and analysis for compliance must also follow the requirements in 10 CSR 10-6.261(5)(D).
10. The permittee of sources using performance testing for compliance must also follow the requirements in 10 CSR 10-6.261(5)(A)
11. All required reports and records must be retained on-site for a minimum of five (5) years and made available within five (5) business days upon written or electronic request by the director.
12. The permittee must furnish the Director all data necessary to determine compliance status.

Reporting:

1. The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any limitation established by this permit condition.
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 annual compliance certification required by Section V of this permit.

PERMIT CONDITION 010	
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds 10 CSR 10-6.261 Control of Sulfur Dioxide	
Emission Unit	Description
EP01	Boiler 1: Coal and Fuel Oil Fired 1,882 MMBtu/hr; Constructed 1966
EP02	Boiler 2: Coal and Oil Fired Boiler: 2,970 MMBtu/hr; Constructed 1969

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.

Monitoring/Recordkeeping:

1. 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.
2. The permittee must report any excess emissions other than startup, shutdown and malfunction excess emissions to the staff director for each calendar quarter within thirty (30) days following the end of the quarter. In all cases, the notification must be a written report and must include, at a minimum, the following:
 - a) Name and location of source;
 - b) Name and telephone number of person responsible for the source;
 - c) Identity and description of the equipment involved;
 - d) Time and duration of the period of excess emissions;
 - e) Type of activity;
 - f) Estimate of the magnitude of the excess emissions expressed in the units of the applicable emission control regulation and the operating data and calculations used in estimating the magnitude;
 - g) Measures taken to mitigate the extent and duration of the excess emissions; and
 - h) Measures taken to remedy the situation which cause the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
3. The permittee must maintain a list of modifications to the source's operating procedures or other routine procedures instituted to prevent or minimize the occurrence of any excess emissions.
4. The permittee must maintain a record of data, calculations, results, records and reports from any performance test, continuous emission monitoring, fuel deliveries, and/or fuel sampling tests.
5. The permittee must maintain a record of any applicable monitoring data, performance evaluations, calibration checks, monitoring system and device performance tests, and any adjustments and maintenance performed on these systems or devices.

6. If SO₂ CEMS is already used to satisfy other requirements (other than only demonstrate compliance with this rule), continue to follow all correlating SO₂ CEMS requirements.
7. All required reports and records must be retained on-site for a minimum of five (5) years and made available within five (5) business days upon written or electronic request by the director.
8. The permittee must furnish the director all data necessary to determine compliance status.

Reporting:

1. The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any limitation established by this permit condition.
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 annual compliance certification required by Section V of this permit.

PERMIT CONDITION 011	
10 CSR 10-6.261 Control of Sulfur Dioxide	
Emission Unit	Description
EP07A	Emergency Diesel Generator For Boilers 1 And 2; 200 HP; Constructed 1964
EP07B	Emergency Diesel Generator For Boiler 3; 170 HP; Constructed 1979

Emission Limitation:

1. Emissions from EP07B shall not contain more than 8,812 parts per million (ppm_v) of sulfur content for distillate fuel.
2. Emissions from EP07A shall not contain more than 35,249 parts per million (ppm_v) of sulfur content for distillate fuel.

Monitoring/Recordkeeping:

1. The permittee shall determine compliance using fuel delivery records, fuel sampling and analysis, performance tests, continuous emission monitoring, or other compliance methods approved by the staff director and the U.S. Environmental Protection agency and incorporated into the state implementation plan.
2. The permittee must report any excess emissions other than startup, shutdown and malfunction excess emissions to the staff director for each calendar quarter within thirty (30) days following the end of the quarter. In all cases, the notification must be a written report and must include, at a minimum, the following:
 - a) Name and location of source;
 - b) Name and telephone number of person responsible for the source;
 - c) Identity and description of the equipment involved;
 - d) Time and duration of the period of excess emissions;
 - e) Type of activity;
 - f) Estimate of the magnitude of the excess emissions expressed in the units of the applicable emission control regulation and the operating data and calculations used in estimating the magnitude;
 - g) Measures taken to mitigate the extent and duration of the excess emissions; and
 - h) Measures taken to remedy the situation which cause the excess emissions and the measures taken or planned to prevent the recurrence of these situations.

3. The permittee must maintain a list of modifications to the source’s operating procedures or other routine procedures instituted to prevent or minimize the occurrence of any excess emissions.
4. The permittee must maintain a record of data, calculations, results, records and reports from any performance test, continuous emission monitoring, fuel deliveries, and/or fuel sampling tests.
5. The permittee must maintain a record of any applicable monitoring data, performance evaluations, calibration checks, monitoring system and device performance tests, and any adjustments and maintenance performed on these systems or devices.
6. The permittee of sources using fuel delivery records for compliance must also maintain the fuel supplier information to certify all fuel deliveries. Bills of lading and/or other fuel deliver documentation containing the following information for all fuel purchases or deliveries are deemed acceptable to comply with the requirements of this rule:
 - a) The name, address, and contact information of the fuel supplier;
 - b) The type of fuel; and
 - c) The sulfur content or maximum sulfur content expressed in percent sulfur by weight or in ppm sulfur.
7. The permittee of sources using fuel sampling and analysis for compliance must also follow the requirements in 10 CSR 10-6.261(5)(D).
8. The permittee of sources using performance testing for compliance must also follow the requirements in 10 CSR 10-6.261(5)(A)
9. All required reports and records must be retained on-site for a minimum of five (5) years and made available within five (5) business days upon written or electronic request by the director.
10. The permittee must furnish the director all data necessary to determine compliance status.

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 012	
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds	
Emission Unit	Description
EP07A	Emergency Diesel Generator For Boilers 1 And 2; 200 HP; Constructed 1964
EP07B	Emergency Diesel Generator For Boiler 3; 170 HP; Constructed 1979
<p><i>10 CSR 10-6.260 was rescinded from the Missouri Code of State Regulations Rules on November 30, 2015 and replaced by 10 CSR 10-6.261; however the provisions of 10 CSR 10-6.260 currently remain in the State Implementation Plan and are federally enforceable. The provisions of 10 CSR 10-6.260 will expire and the provisions of 10 CSR 10-6.261 will become federally enforceable once 10 CSR 10-6.261 is incorporated into the federally-approved SIP as a final EPA action. This permit condition will expire and the limitations thereof will no longer apply to the installation once 10 CSR 10-6.261 is incorporated into the SIP. No action on the part of the permittee is required to remove this condition from the operating permit.</i></p>	

Emission Limitations:

Emissions from any new source operation shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide or more than thirty-five milligrams per cubic meter (35 mg/cubic meter) of sulfuric acid or sulfur trioxide or any combination of those three gases averaged on any non-consecutive three (3)-hour period.

Monitoring/Recordkeeping/Reporting:

Compliance with the Monitoring, Recordkeeping and Reporting requirements of Permit Condition 010 are sufficient to ensure compliance.

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
EP01	Boiler 1: Coal and Fuel Oil Fired 1,882 MMBtu/hr; Constructed 1966
EP02	Boiler 2: Coal and Oil Fired Boiler: 2,970 MMBtu/hr; Constructed 1969
EP03	Boiler 3: Coal and Oil Fired 7,000 MMBtu/hr; Constructed 1966

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) Attachment E contains a copy of the current Acid Rain 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:

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 014	
10 CSR 10-6.362 Clean Air Interstate Rule Annual NOx Trading Program 10 CSR 10-6.364 Clean Air Interstate Rule Seasonal NOx Trading Program 10 CSR 10-6.366 Clean Air Interstate Rule SOx Trading Program	
Emission Unit	Description
EP01	Boiler 1: Coal and Fuel Oil Fired 1,882 MMBtu/hr; Constructed 1966
EP02	Boiler 2: Coal and Oil Fired Boiler: 2,970 MMBtu/hr; Constructed 1969
EP03	Boiler 3: Coal and Oil Fired 7,000 MMBtu/hr; Constructed 1966
<p><i>The Clean Air Interstate Rule (CAIR) has recently been replaced by the Cross State Air Pollution Rule (CSAPR), however a CAIR Permit is being issued to this facility because the CAIR regulations have not been removed from the Missouri State Implementation Plan (SIP) at this time. AECI Thomas Hill Energy Center is not required to hold CAIR allowances and therefore no violation of CAIR is possible. Once the CAIR regulations are removed from the SIP and replaced with CSAPR, this permit condition will expire and the limitation thereof will no longer apply to the installation. No action on the part of the permittee is required to remove this permit condition from the operating permit.</i></p>	

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) Attachment F contains a copy of the CAIR 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:

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 015	
40 CFR Parts 70 and 97 Cross State Air Pollution Rule	
10 CSR 10-6.372 Cross-State Air Pollution Rule Annual NO _x Trading Allowance Allocations	
10 CSR 10-6.374 Cross-State Air Pollution Rule Ozone Season NO _x Trading Allowance Allocations	
10 CSR 10-6.376 Cross-State Air Pollution Rule Annual SO ₂ Trading Allowance Allocations	
Emission Unit	Description
EP01	Boiler 1: Coal and Fuel Oil Fired 1,882 MMBtu/hr; Constructed 1966
EP02	Boiler 2: Coal and Oil Fired Boiler: 2,970 MMBtu/hr; Constructed 1969
EP03	Boiler 3: Coal and Oil Fired 7,000 MMBtu/hr; Constructed 1966

The TR subject unit(s), and the unit-specific monitoring provisions, at this source are identified in the following table(s). These unit(s) are subject to the requirements for the TR NO_x Annual Trading Program, TR NO_x Ozone Season Trading Program, and TR SO₂ Group 1 Trading Program.

Parameter	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, subpart B (for SO ₂ monitoring) and 40 CFR part 75, subpart H (for NO _x monitoring)	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR part 75, appendix E	Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19	EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E

SO ₂	EP01, EP02 & EP03	-----	-----	-----	-----
NO _x	EP01, EP02 & EP03	-----	-----	-----	-----
Heat Input	EP01, EP02 & EP03	-----	-----	-----	-----

1. The above description of the monitoring used by a unit does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 40 CFR 97.430 through 97.435 (TR NO_x Annual Trading Program), 97.530 through 97.535 (TR NO_x Ozone Season Trading Program), and 97.630 through 97.635 (TR SO₂ Group 1 Trading Program). The monitoring, recordkeeping and reporting requirements applicable to each unit are included below in the standard conditions for the applicable TR trading programs.
2. The permittee must submit to the Administrator a monitoring plan for each unit in accordance with 40 CFR 75.53, 75.62 and 75.73, as applicable. The monitoring plan for each unit is available at the EPA’s website at <http://www.epa.gov/airmarkets/emissions/monitoringplans.html>.
3. The permittee that want to use an alternative monitoring system must submit to the Administrator a petition requesting approval of the alternative monitoring system in accordance with 40 CFR part 75, subpart E and 40 CFR 75.66 and 97.435 (TR NO_x Annual Trading Program), 97.535 (TR NO_x Ozone Season Trading Program), and/or 97.635 (TR SO₂ Group 1 Trading Program). The Administrator’s response approving or disapproving any petition for an alternative monitoring system is available on the EPA’s website at <http://www.epa.gov/airmarkets/emissions/petitions.html>.
4. The permittee that want to use an alternative to any monitoring, recordkeeping, or reporting requirement under 40 CFR 97.430 through 97.434 (TR NO_x Annual Trading Program), 97.530 through 97.534 (TR NO_x Ozone Season Trading Program), and/or 97.630 through 97.634 (TR SO₂ Group 1 Trading Program) must submit to the Administrator a petition requesting approval of the alternative in accordance with 40 CFR 75.66 and 97.435 (TR NO_x Annual Trading Program), 97.535 (TR NO_x Ozone Season Trading Program), and/or 97.635 (TR SO₂ Group 1 Trading Program). The Administrator’s response approving or disapproving any petition for an alternative to a monitoring, recordkeeping, or reporting requirement is available on the EPA’s website at <http://www.epa.gov/airmarkets/emissions/petitions.html>.
5. The descriptions of monitoring applicable to the unit included above meet the requirement of 40 CFR 97.430 through 97.434 (TR NO_x Annual Trading Program), 97.530 through 97.534 (TR NO_x Ozone Season Trading Program), and 97.630 through 97.634 (TR SO₂ Group 1 Trading Program), and therefore minor permit modification procedures, in accordance with 40 CFR 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B), may be used to add or change this unit’s monitoring system description.

TR NO_x Annual Trading Program requirements (40 CFR 97.406)

(a) Designated representative requirements.

The permittee shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.413 through 97.418.

(b) Emissions monitoring, reporting, and recordkeeping requirements.

- (1) The permittee, and the designated representative, of each TR NO_x Annual source and each TR NO_x Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.430 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.431 (initial monitoring system certification and recertification procedures), 97.432 (monitoring system out-of-control periods), 97.433 (notifications concerning monitoring), 97.434

(recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.435 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

- (2) The emissions data determined in accordance with 40 CFR 97.430 through 97.435 shall be used to calculate allocations of TR NO_x Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the TR NO_x Annual emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.430 through 97.435 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

(c) NO_x emissions requirements.

- (1) TR NO_x Annual emissions limitation.

- (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO_x Annual source and each TR NO_x Annual unit at the source shall hold, in the source's compliance account, TR NO_x Annual allowances available for deduction for such control period under 40 CFR 97.424(a) in an amount not less than the tons of total NO_x emissions for such control period from all TR NO_x Annual units at the source.
- (ii). If total NO_x emissions during a control period in a given year from the TR NO_x Annual units at a TR NO_x Annual source are in excess of the TR NO_x Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - (A). The permittee of the source and each TR NO_x Annual unit at the source shall hold the TR NO_x Annual allowances required for deduction under 40 CFR 97.424(d); and
 - (B). The permittee of the source and each TR NO_x Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act.

- (2) TR NO_x Annual assurance provisions.

- (i). If total NO_x emissions during a control period in a given year from all TR NO_x Annual units at TR NO_x Annual sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO_x Annual allowances available for deduction for such control period under 40 CFR 97.425(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.425(b), of multiplying— (A) The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and

- (B) The amount by which total NO_x emissions from all TR NO_x Annual units at TR NO_x Annual sources in the state for such control period exceed the state assurance level.
- (ii). The permittee shall hold the TR NO_x Annual allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
 - (iii). Total NO_x emissions from all TR NO_x Annual units at TR NO_x Annual sources in the State during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the state NO_x Annual trading budget under 40 CFR 97.410(a) and the state's variability limit under 40 CFR 97.410(b).
 - (iv). It shall not be a violation of 40 CFR part 97, subpart AAAAA or of the Clean Air Act if total NO_x emissions from all TR NO_x Annual units at TR NO_x Annual sources in the State during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the TR NO_x Annual units at TR NO_x Annual sources in the state during a control period exceeds the common designated representative's assurance level.
 - (v). To the extent the permittee fails to hold TR NO_x Annual allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - (A). The permittee shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - (B). Each TR NO_x Annual allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act.
- (3) Compliance periods.
- (i). A TR NO_x Annual unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.
 - (ii). A TR NO_x Annual unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.
- (4) Vintage of allowances held for compliance.
- (i). A TR NO_x Annual allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO_x Annual allowance that was allocated for such control period or a control period in a prior year.
 - (ii). A TR NO_x Annual allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO_x Annual allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
- (5) Allowance Management System requirements. Each TR NO_x Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart AAAAA.
- (6) Limited authorization. A TR NO_x Annual allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:

- (i). Such authorization shall only be used in accordance with the TR NO_x Annual Trading Program; and
- (ii). Notwithstanding any other provision of 40 CFR part 97, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

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

(d) Title V permit revision requirements.

- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO_x Annual allowances in accordance with 40 CFR part 97, subpart AAAAA.
- (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.430 through 97.435, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.406(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

(e) Additional recordkeeping and reporting requirements.

- (1) Unless otherwise provided, the owners and operators of each TR NO_x Annual source and each TR NO_x Annual unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - (i). The certificate of representation under 40 CFR 97.416 for the designated representative for the source and each TR NO_x Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.416 changing the designated representative.
 - (ii). All emissions monitoring information, in accordance with 40 CFR part 97, subpart AAAAA.
 - (iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR NO_x Annual Trading Program.
- (2) The designated representative of a TR NO_x Annual source and each TR NO_x Annual unit at the source shall make all submissions required under the TR NO_x Annual Trading Program, except as provided in 40 CFR 97.418. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

(f) Liability.

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

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

(g) Effect on other authorities.

No provision of the TR NO_x Annual Trading Program or exemption under 40 CFR 97.405 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR NO_x Annual source or TR NO_x Annual unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

TR NO_x Ozone Season Trading Program Requirements (40 CFR 97.506)

Designated representative requirements.

The permittee shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.513 through 97.518.

(a) Emissions monitoring, reporting, and recordkeeping requirements.

- (1) The permittee, and the designated representative, of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.530 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.531 (initial monitoring system certification and recertification procedures), 97.532 (monitoring system out-of-control periods), 97.533 (notifications concerning monitoring), 97.534 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.535 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- (2) The emissions data determined in accordance with 40 CFR 97.530 through 97.535 shall be used to calculate allocations of TR NO_x Ozone Season allowances under 40 CFR 97.511(a)(2) and (b) and 97.512 and to determine compliance with the TR NO_x Ozone Season emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.530 through 97.535 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

(b) NO_x emissions requirements.

- (1) TR NO_x Ozone Season emissions limitation.
- (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, TR NO_x Ozone Season allowances available for deduction for such control period under 40 CFR 97.524(a) in an amount not less than the tons of total NO_x emissions for such control period from all TR NO_x Ozone Season units at the source.
- (ii). If total NO_x emissions during a control period in a given year from the TR NO_x Ozone Season units at a TR NO_x Ozone Season source are in excess of the TR NO_x Ozone Season emissions limitation set forth in paragraph (c)(1)(i) above, then:
- (A). The permittee of the source and each TR NO_x Ozone Season unit at the source shall hold the TR NO_x Ozone Season allowances required for deduction under 40 CFR 97.524(d); and
- (B). The permittee of the source and each TR NO_x Ozone Season unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for

the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBBB and the Clean Air Act.

(2) TR NO_x Ozone Season assurance provisions.

- (i). If total NO_x emissions during a control period in a given year from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state exceed the state assurance level, then The permittee of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO_x Ozone Season allowances available for deduction for such control period under 40 CFR 97.525(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.525(b), of multiplying—
 - (A). The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and
 - (B). The amount by which total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state for such control period exceed the state assurance level.
- (ii). The permittee shall hold the TR NO_x Ozone Season allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
- (iii). Total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the State NO_x Ozone Season trading budget under 40 CFR 97.510(a) and the state's variability limit under 40 CFR 97.510(b).
- (iv). It shall not be a violation of 40 CFR part 97, subpart BBBBBB or of the Clean Air Act if total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state during a control period exceeds the common designated representative's assurance level.
- (v). To the extent the permittee fails to hold TR NO_x Ozone Season allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - (A). The permittee shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - (B). Each TR NO_x Ozone Season allowance that the permittee fails to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBBB and the Clean Air Act.

- (3) Compliance periods.
- (i). A TR NO_x Ozone Season unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.
 - (ii). A TR NO_x Ozone Season unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.
- (4) Vintage of allowances held for compliance.
- (i). A TR NO_x Ozone Season allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO_x Ozone Season allowance that was allocated for such control period or a control period in a prior year.
 - (ii). A TR NO_x Ozone Season allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO_x Ozone Season allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
- (5) Allowance Management System requirements. Each TR NO_x Ozone Season allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart BBBBB.
- (6) Limited authorization. A TR NO_x Ozone Season allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:
- (i). Such authorization shall only be used in accordance with the TR NO_x Ozone Season Trading Program; and
 - (ii). Notwithstanding any other provision of 40 CFR part 97, subpart BBBBB, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
- (7) Property right. A TR NO_x Ozone Season allowance does not constitute a property right.

(c) Title V permit revision requirements.

- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO_x Ozone Season allowances in accordance with 40 CFR part 97, subpart BBBBB.
- (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.530 through 97.535, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.506(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

(d) Additional recordkeeping and reporting requirements.

- (1) Unless otherwise provided, the permittee of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document

is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

- (i). The certificate of representation under 40 CFR 97.516 for the designated representative for the source and each TR NO_x Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.516 changing the designated representative.
 - (ii). All emissions monitoring information, in accordance with 40 CFR part 97, subpart BBBBB.
 - (iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR NO_x Ozone Season Trading Program.
- (2) The designated representative of a TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall make all submissions required under the TR NO_x Ozone Season Trading Program, except as provided in 40 CFR 97.518. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

(e) Liability.

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

(f) Effect on other authorities.

No provision of the TR NO_x Ozone Season Trading Program or exemption under 40 CFR 97.505 shall be construed as exempting or excluding the permittee, and the designated representative, of a TR NO_x Ozone Season source or TR NO_x Ozone Season unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

TR SO₂ Group 1 Trading Program requirements (40 CFR 97.606)

(a) Designated representative requirements.

The permittee shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.613 through 97.618.

(b) Emissions monitoring, reporting, and recordkeeping requirements.

- (1) The permittee, and the designated representative, of each TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.630 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.631 (initial monitoring system certification and recertification procedures), 97.632 (monitoring system out-of-control periods), 97.633 (notifications concerning monitoring), 97.634 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly

reports, and compliance certification), and 97.635 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

- (2) The emissions data determined in accordance with 40 CFR 97.630 through 97.635 shall be used to calculate allocations of TR SO₂ Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the TR SO₂ Group 1 emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.630 through 97.635 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

(c) SO₂ emissions requirements.

- (1) TR SO₂ Group 1 emissions limitation.

- (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall hold, in the source's compliance account, TR SO₂ Group 1 allowances available for deduction for such control period under 40 CFR 97.624(a) in an amount not less than the tons of total SO₂ emissions for such control period from all TR SO₂ Group 1 units at the source.
- (ii). If total SO₂ emissions during a control period in a given year from the TR SO₂ Group 1 units at a TR SO₂ Group 1 source are in excess of the TR SO₂ Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - (A). The permittee of the source and each TR SO₂ Group 1 unit at the source shall hold the TR SO₂ Group 1 allowances required for deduction under 40 CFR 97.624(d); and
 - (B). The permittee of the source and each TR SO₂ Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 40 CFR part 97, subpart CCCCC and the Clean Air Act.

- (2) TR SO₂ Group 1 assurance provisions.

- (i). If total SO₂ emissions during a control period in a given year from all TR SO₂ Group 1 units at TR SO₂ Group 1 sources in the state exceed the state assurance level, then the permittee of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such SO₂ emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the permittee of such group) TR SO₂ Group 1 allowances available for deduction for such control period under 40 CFR 97.625(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.625(b), of multiplying—
 - (A). The quotient of the amount by which the common designated representative's share of such SO₂ emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such SO₂ emissions exceeds the respective common designated representative's assurance level; and

- (B). The amount by which total SO₂ emissions from all TR SO₂ Group 1 units at TR SO₂ Group 1 sources in the state for such control period exceed the state assurance level.
- (ii). The permittee shall hold the TR SO₂ Group 1 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
 - (iii). Total SO₂ emissions from all TR SO₂ Group 1 units at TR SO₂ Group 1 sources in the state during a control period in a given year exceed the state assurance level if such total SO₂ emissions exceed the sum, for such control period, of the state SO₂ Group 1 trading budget under 40 CFR 97.610(a) and the state's variability limit under 40 CFR 97.610(b).
 - (iv). It shall not be a violation of 40 CFR part 97, subpart CCCCC or of the Clean Air Act if total SO₂ emissions from all TR SO₂ Group 1 units at TR SO₂ Group 1 sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total SO₂ emissions from the TR SO₂ Group 1 units at TR SO₂ Group 1 sources in the during a control period exceeds the common designated representative's assurance level.
 - (v). To the extent the permittee fails to hold TR SO₂ Group 1 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - (A). The permittee shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - (B). Each TR SO₂ Group 1 allowance that the permittee fails to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart CCCCC and the Clean Air Act.
- (3) Compliance periods.
- (i). A TR SO₂ Group 1 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.
 - (ii). A TR SO₂ Group 1 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.
- (4) Vintage of allowances held for compliance.
- (i). A TR SO₂ Group 1 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR SO₂ Group 1 allowance that was allocated for such control period or a control period in a prior year.
 - (ii). A TR SO₂ Group 1 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR SO₂ Group 1 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
- (5) Allowance Management System requirements. Each TR SO₂ Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart CCCCC.
- (6) Limited authorization. A TR SO₂ Group 1 allowance is a limited authorization to emit one ton of SO₂ during the control period in one year. Such authorization is limited in its use and duration as follows:

- (i). Such authorization shall only be used in accordance with the TR SO₂ Group 1 Trading Program; and
- (ii). Notwithstanding any other provision of 40 CFR part 97, subpart CCCCC, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

(7) Property right. A TR SO₂ Group 1 allowance does not constitute a property right.

(d) Title V permit revision requirements.

- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR SO₂ Group 1 allowances in accordance with 40 CFR part 97, subpart CCCCC.
- (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.630 through 97.635, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR part 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E), Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.606(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

(e) Additional recordkeeping and reporting requirements.

- (1) Unless otherwise provided, the permittee of each TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - (i). The certificate of representation under 40 CFR 97.616 for the designated representative for the source and each TR SO₂ Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.616 changing the designated representative.
 - (ii). All emissions monitoring information, in accordance with 40 CFR part 97, subpart CCCCC.
 - (iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR SO₂ Group 1 Trading Program.
- (2) The designated representative of a TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall make all submissions required under the TR SO₂ Group 1 Trading Program, except as provided in 40 CFR 97.618. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

(f) Liability.

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

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

(g) Effect on other authorities.

No provision of the TR SO₂ Group 1 Trading Program or exemption under 40 CFR 97.605 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR SO₂ Group 1 source or TR SO₂ Group 1 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

PERMIT CONDITION 016	
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	
Emission Unit	Description
EP07A	Emergency Diesel Generator For Boilers 1 And 2; 200 HP; Constructed 1964
EP07B	Emergency Diesel Generator For Boiler 3; 170 HP; Constructed 1979

Applicability:

Both EP07A and EP07B 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)]

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]

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 Director pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

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)]

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

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 §66.6640(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)]

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)]

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 Director 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) Each 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)]
- b) 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)]
- c) 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 017	
10 CSR 10-6.070 New Source Performance Standards 40 CFR Part 60 Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	
Emission Unit	Description
EP07C	Emergency Fire Pump Engine: 300 HP Diesel Compression Ignition Engine; Constructed 2014

Emission Limitations:

1. The permittee must meet the emission standards in table 4 of 40 CFR Part 60 Subpart IIII that are applicable EP07C: [§60.4204(c)]
 - a) For Maximum Engine Power $225 \leq \text{KW} < 450$ ($300 \leq \text{HP} < 600$):
 - i. NMHC + NO_x: 4.0 g/KW-hr (3.0 g/HP-hr)
 - ii. PM: 0.20 g/KW-hr (0.15 g/HP-hr)

Operational Standards:

1. The permittee must comply with this subpart by purchasing an engine certified to the emission standards. The engine must be installed and configured according to the manufacturer's emission-related specifications. [§60.4211(c)]
2. The permittee must operate and maintain the engine to achieve the emission standards over the entire life of the engine. [§60.4206]
3. The permittee must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel. The fuel may have maximum sulfur content 15 ppm. [§60.4207(b)]
4. In order for the engine to be considered an emergency stationary ICE under subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency saturations for 50 hours per year is prohibited. If the engine is not operated according to the requirements below, the engine will not be considered an emergency engine and must meet all requirements for non-emergency engine. [§60.4211(f)]
5. There is no time limit on the use of emergency stationary ICE in emergency situations. [§60.4211(f)(1)]
6. The permittee may operate the engine for any combination of the following purposes for a maximum of 100 hours per calendar year. Any operation for non-emergency situations counts as part of the 100 hours.
 - a) The engine may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine.
7. The engine may be operated for up to 50 hours per calendar year in non-emergency saturations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity unless the conditions in §60.4211(f)(3)(i)(A) through (E) are met. [§60.4211(f)(3)]

Monitoring/Recordkeeping:

1. The permittee must install a non-resettable hour meter prior to startup of the engine. [§60.4209(a)]
2. The permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [§60.4214(b)]
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 report to the Air Pollution Control Program's Compliance and 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 annual compliance certification required by Section V of this permit.

PERMIT CONDITION 018	
10 CSR 10-6.020(2)(I)23. and 10 CSR 10-6.065(5)(C)2. Voluntary Limitation(s) No Construction Permit Required Determination, Issued November 21, 2006	
Emission Unit	Description
EP-11D	Units 1 and 2 Fly Ash Mixer Loadout : 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 Compliance and 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.

- 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 019	
10 CSR 10-6.060 Construction Permits Required Construction Permit 122010-011, Issued December 17, 2010	
Emission Unit	Description
EP01	Boiler 1: Coal and Fuel Oil Fired 1,882 MMBtu/hr; Constructed 1966
EP02	Boiler 2: Coal and Oil Fired Boiler: 2,970 MMBtu/hr; Constructed 1969

Emission Limitation:

- Special Condition 2: Standards of Performance for Best Available Control Technology (BACT) for CO
 - 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.
 - 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.
 - The permittee shall operate continuous CO emission monitors on Unit 1 and Unit 2 to measure, record and report CO emissions compliance.

Monitoring:

- Special Condition 3: Continuous Emission Monitoring System (CEMS) – Unit 1 and Unit 2
 - 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.
 - CEMS certification shall be made pursuant to 40 CFR Part 60, Appendix B, Performance Specification 4.
 - Periodic quality assurance assessments shall be conducted according to the procedures outlined in 40 CFR Part 60, Appendix F.
 - 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:

- The permittee shall retain each record in either hard copy or electronic form.
- 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:

- Special Condition 5: The permittee shall report CO emissions in their semi-annual monitoring reports and in their annual compliance certification.
- The permittee shall report to the Air Pollution Control Program's Compliance and 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.

- 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 020	
10 CSR 10-6.020(2)(I)23. and 10 CSR 10-6.065(5)(C)2. Voluntary Limitation(s) 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: 12.6 MMBtu/hr; #2 Fuel Oil Fired; Constructed 1966
EP05	Auxiliary Boilers AB3A & AB3B: 155.6 MMBtu/hour each; #2 Fuel Oil Fired; Constructed 1981

Emission/Operational Limitations:

- The permittee shall operate EP04 and EP05 as limited use boilers as defined in 40 CFR Part 63 Subpart DDDDD. EP04 and EP05 shall have an annual capacity factor of no more than 10 percent.
- The permittee must operate and maintain the Auxiliary Boilers in a manner consistent with safety and good air pollution control practices for minimizing emissions. [§63.7550(a)(3)]
- The permittee must complete a tune-up of the Auxiliary Boilers every 5 years as specified in §63.7540 and Table 3 to 40 CFR Part 63 Subpart DDDDD – Work Practice Standards. [§63.7500(c)]

Monitoring/Recordkeeping:

- The permittee must keep fuel use records for the days the Auxiliary Boilers are operating. [§63.7550(a)]
- The permittee must keep a copy of this operating permit which limits the annual capacity factor to less than or equal to 10 percent. [§63.7555(a)(3)]
- The permittee must keep records in a form suitable and readily available for expeditious review. [§63.7560(a)]
- The permittee must keep all records for 5 years and the records must be kept on site for at least 2 years following the date of each report or record [§63.7560(b) and (c)]

Reporting:

- The permittee must submit each report in Table 9 of CFR Part 63 Subpart DDDDD that applies:
Table 9 to Subpart DDDDD of Part 63—Reporting Requirements

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. Information required in §63.7550(c)(1) through (5); and	Every 5 years according to the requirements in §63.7550(b).
	b. If there are no deviations from any operating limit that applies to you and there are no deviations from the requirements for work practice standards for periods of startup and shutdown in Table 3 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period.	

	c. If you have a deviation from any operating limit, or a deviation from a work practice standard for periods of startup and shutdown, during the reporting period, the report must contain the information in §63.7550(d); and	
--	---	--

2. The permittee shall report to the Air Pollution Control Program’s Compliance/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 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 021	
10 CSR 10-6.060 Construction Permits Required	
Construction Permit 012013-001A, Issued March 24, 2014	
Emission Unit	Description
EP11C	Fly Ash Loading (Alternate): Unit 3 fly ash mixer loadout; MHDR= 17.6 tons/hour; Constructed 2013
EP11D	Units 1 and 2 Fly Ash Mixer Loadout; MHDR = 7.62 tons/hour; Constructed 2013
FE2	Fly Ash Hauling to Landfill: Disposal rout unpaved haul road; MHDR = 4.71 VMT
FE3A	Dump Truck Fly Ash Unloading to Landfill; Dump truck fly ash loadout: MHDR = 24.22 VMT
FE8	Disposal Area Fly Ash and Bulldozer Activity

Emission Limitations:

1. The permittee shall emit less than 25.0 tons of particulate matter (PM) in any consecutive 12-month period from emission units EP11C, EP11D, FE2, FE3 and FE8. [Special Condition 2.A]

Monitoring/Recordkeeping:

1. The permittee shall develop and use forms to demonstrate compliance with the emission limit. The forms shall contain at a minimum the following information: [Special Condition 2.B]
 - a) Installation name
 - b) Installation ID
 - c) Permit number
 - d) Current month
 - e) Current 12-month date range
 - f) Emission units and respective current month throughput
 - i. EP11C and EP11D ash mixers, tons
 - ii. FE2 disposal truck route, miles driven
 - iii. FE3 disposal area truck loadout, tons
 - iv. FE8 disposal bulldozer, hours
 - g) Emission unit respective emission factors
 - i. 0.0017 lb/ton
 - ii. 1.1341 lb/mile
 - iii. 0.0017 lb/ton
 - h) Current month’s fly ash silt% and moisture% obtained from testing, for use in calculated FE8 emission rate.

- i) FE8 PM Emission rate (lb/hr) using the following equation

$$= \frac{5.7 * \%Silt^{1.2}}{\%Moisture^{1.3}} * \frac{53}{260}$$

(Where the variables are expressed with the % sign, e.g. 9.4% as 9.4)

- j) Current month's PM emissions calculated for EP11C, 11D, FE2, and FE3 as Throughput (units) x EF (lb/units) ÷ 2000 (lb/ton).
- k) 12-month PM emissions from previous month
- l) Current month's PM emissions from last year
- m) 12-month rolling PM emissions = Sum of current months emissions and the previous 11 months emissions.
- n) Indication of compliance status

Operational Requirement for Compliance Tracking:

1. Each disposal area ash placement heavy equipment (i.e. bulldozer) shall each be fitted with a non-resettable hour meter than indicates hours of operation. [Special Condition 3.A]
2. The permittee shall make daily records of the number of haul truck trips to the fly ash disposal area. Haul truck miles shall be calculated monthly by multiplying the sum of the daily number of trips by the round trip distance to the disposal area. [Special Condition 3.B]
3. The permittee shall test fly ash from mixer loadouts EP11C and EP11D, each for silt content. [Special Condition 3.C]
 - a) Test samples shall be representative of normal operation. The permittee shall develop and follow a written sampling protocol for each mixer.
 - b) Silt tests shall be conducted according to ASTM D422 or other method preapproved by the Air Pollution Control Program.
 - c) Testing shall be conducted according to the following schedule:
 - i. A minimum of 3 tests. An average silt content of all tests conducted during this period shall be determined. Once an average is determined then,
 - ii. The permittee shall test once per every six consecutive months. If any test conducted during this period differs from the average by more than ± 5%, then this most recent silt content shall be used and testing shall revert to the initial frequency and progression.
 - d) Each written analytical report shall include the raw data, silt content of each sample, average silt content, the sample date, test date, one set of complete example calculations, and the identification of the individual performing the test. The report shall be files on-site within 30 days of completion of the required test. If testing is performed in-house, then a written analytical report is not required, but a written record of the above silt contents, dates, calculations, and identification shall be kept on site
4. The permittee shall test fly ash from mixer loadouts EP11C and EP11D, each for moisture content. [Special Condition 3.D]
 - a) Test samples shall be representative of normal operation. The permittee shall develop and follow a written sampling protocol for each mixer.
 - b) Test samples shall be obtained at least weekly.
 - c) Moisture tests shall be conducted at least monthly and according to ASTM D1266 or other method preapproved by the Air Pollution Control Program.
 - d) Each written analytical report shall include the raw data, moisture content of each sample, the sample date, test date, one set of complete calculations and the identification of the individual performing the test. The report shall be files on-site within 30 days of completion of the

required test. If testing is performed in-house, then a written analytical report is not required, but a written record of the above moisture contents, dates, calculations, and identification shall be kept on site.

- e) One weighted average moisture content shall be developed monthly, for use in recordkeeping. The weighted average shall be established using the following equation:

$$= \frac{(\text{EP11D moisture} * \text{EP11D throughput (tons)} + \text{EP11C moisture} * \text{EP11C throughput (tons)})}{\text{EP11D throughput (tons)} + \text{EP11C throughput (tons)}}$$

Where the moisture content is expressed without the % sign, e.g. 9.4% as 9.4. The current month's average shall be used for the current month's compliance demonstration. The weighted average calculation shall be kept on site.

Record Keeping and Reporting Requirements:

1. The permittee shall maintain all records for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. [Special Condition 5.A]
2. The permittee shall report to the Air Pollution Control Program's Compliance/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. [Special Condition 5.B]
3. 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 022	
10 CSR 10-6.060 Construction Permits Required	
Construction Permit 122014-004, Issued December 16, 2004	
Emission Unit	Description
EP13	M45-PC Additive A2 Silo with filter
HR21	Paved Haul Road

Operational Limitations:

1. The permittee shall control emissions from EP13 using a filter as specified in the application for construction permit 122014-004. [Special Condition 1.A]
2. The filter shall be operated and maintained in accordance with the manufacturer's specifications. The filter shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. The gauge or meter shall be located such that Department of Natural Resources' employees may easily observe it. [Special Condition 1.B]
3. Replacement filters shall be kept on hand 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). [Special Condition 1.C]
4. The permittee shall maintain and/or repair the portions of HR21 Paved Haul Road. Maintenance of the surface shall be conducted as necessary 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. [Special Condition 2.A]

5. The permittee shall periodically water, wash, and/or otherwise clean HR21 Paved Haul Road as necessary to achieve control of fugitive emissions. [Special Condition 2.B]

Monitoring/Recordkeeping:

1. The permittee shall monitor and record the operating pressure drop across the filter at least once every 24 hours during operation. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. [Special Condition 1.D]
2. The permittee shall maintain a copy of the filter manufacturer's performance warranty on site. [Special Condition 1.E]
3. The permittee shall maintain an operating and maintenance log for the filter which shall include the following (See Attachment D): [Special Condition 1.F]
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
4. The permittee shall maintain all records for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include SDS for all material associated with the M45-PC system. [Special Condition 5.A]

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.

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), the Code of State Regulations (CSR), and local ordinances 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 are only excerpts from the regulation or code, and are 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) 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.

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) 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 to the director in writing at least ten days prior to any maintenance, start-up or shutdown activity 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, notice shall be given as soon as practicable prior to the activity.
- 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. The permittee shall retain the most current operating permit issued to this installation on-site. The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request.

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

- 1) The permittee shall submit a Full Emissions Report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the director.
- 2) 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.
- 3) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079.

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 10-6.165 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. This odor evaluation shall be taken at a location outside of the installation's property boundary.

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:

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.

The permittee shall maintain the following monitoring schedule:

- 1) The permittee shall conduct weekly observations for a minimum of eight (8) consecutive weeks after permit issuance.
- 2) Should no violation of this regulation be observed during this period then-
 - a) The permittee may observe once every two (2) weeks for a period of eight (8) weeks.
 - b) If a violation is noted, monitoring reverts to weekly.
 - c) Should no violation of this regulation be observed during this period then-
 - i) The permittee may observe once per month.
 - ii) If a violation is noted, monitoring reverts to weekly.
- 3) If the permittee reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.

Recordkeeping:

The permittee shall document all readings on Attachment A, or its equivalent, noting the following:

- 1) Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
- 2) Whether equipment malfunctions contributed to an exceedance.
- 3) 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 10-6.280 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 at an installation:
 - 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.

40 CFR Part 82 Protection of Stratospheric Ozone (Title VI)

- 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 40 CFR §82.106.
 - b) The placement of the required warning statement must comply with the requirements of 40 CFR §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements of 40 CFR §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in 40 CFR §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 of 40 CFR Part 82:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices described in 40 CFR §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment described in 40 CFR §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with the record keeping requirements of 40 CFR §82.166. ("MVAC-like" appliance as defined at 40 CFR §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR §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 contained 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.*

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, Compliance and 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.
 - 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. 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 semiannual 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)

If the installation is required to develop and register a risk management plan pursuant to Section 112(R) of the Act, the permittee will verify that it has complied with the requirement to register the plan.

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.

An acid rain permit is being issued/renewed along with this operating permit and it is included as Attachment E.

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)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 semiannually (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, 11201 Renner Blvd., Lenexa, KS 66219, as well as the Air Pollution Control Program, Compliance and 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 applicable 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, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, 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, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, 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 APCP shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the APCP as above at least seven days before the change is to be made. If less than seven day 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 APCP 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 permit, 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 contemporaneous written notice of the change to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3 of this

- rule. 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)34 Responsible Official

The application utilized in the preparation of this permit was signed by Stephen Iwanowicz, Plant Manager. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change.

Persons occupying the following positions at AECI are also 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

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) MDNR 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 Emissions 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
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: AECI – Thomas Hill Energy Center
ORIS Code: 2168
Unit IDs: MB1, MB2 and MB3


The permit application submitted for this source, as corrected by the State of Missouri Department of Natural Resources (MDNR), Air Pollution Control Program (APCP), 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.

This acid rain permit is effective for the five-year period shown above, 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 no later than June 30, 2019, per 40 CFR 72.30, *Requirement to apply*, and in conjunction with the operating permit renewal application.

AUG 11 2017

Date



Director or Designee,
Department of Natural Resources

Thomas Hill Energy Center Facility (Source) Name (from STEP 1)

Page 2

Permit Requirements

STEP 3

Read the standard 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 source or unit, as appropriate, 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 source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; 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).

Thomas Hill Energy Center Facility (Source) Name (from STEP 1)

Page 3

Sulfur Dioxide Requirements, Cont'd.

STEP 3, Cont'd.

- (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.

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 source 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 source 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

Thomas Hill Energy Center
Facility (Source) Name (from STEP 1)

Page 4

submission of a new certificate of representation changing the designated representative;

STEP 3, Cont'd.

Recordkeeping and Reporting Requirements, Cont'd.

- (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.
- (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.
- (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:

Thomas Hill Energy Center
Facility (Source) Name (from STEP 1)

STEP 3, Cont'd.

(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

Effect on Other Authorities, Cont'd.

to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source 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;

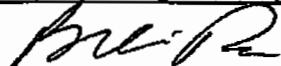
STEP 4
Read the certification statement, sign, and date.

(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.

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 Brent Ross - Designated Representative	
Signature 	Date 1-30-2017

ATTACHMENT F
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
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 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 which expires on the same date as the operating permit. The designated representative must submit an application for renewal of this permit in conjunction with the Title V Part 70 Operating Permit renewal application.

AUG 11 2017

Date



Director or Designee,
Department of Natural Resources

CAIR Permit Application RECEIVED

Page 1

(for sources covered under a CAIR §(B) 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
---------------------------------------	-------------	------------------------------

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).

Thomas Hill Power Plant
Plant Name (from Step 1)

CAIR Permit Application
Page 2

STEP 3,
continued

(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

INSTALLATION DESCRIPTION

AECI 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. Fly-ash unloading, hauling and disposal operations are also on site. The installation is a major source of Carbon Monoxide (CO), Greenhouse Gases (CO_{2e}), Nitrogen Oxides (NO_x), Particulate Matter less ≤ 10 microns and ≤ 2.5 microns (PM₁₀ and PM_{2.5}), sulfur Oxides (SO_x), Volatile Organic Compounds (VOCs) and Hazardous Air Pollutants (HAPs), including individual HAPs: Chloride, Hydrogen Fluoride, and Formaldehyde.

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	820.32
Filterable PM _{2.5}	174.36
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 to Emit was taken from previous operating permit OP2010-126A and increases/decreases in PTE of PM₁₀ and PM_{2.5} resulting from Construction Permits 012013-001A and 122014-004A are included. 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.

Reported Air Pollutant Emissions, tons per year

Pollutants	2015	2014	2013	2012	2011
Particulate Matter ≤ Ten Microns (PM ₁₀)	1,048.01	1,267.18	1,146.35	925.61	544.00
Particulate Matter ≤ 2.5 Microns (PM _{2.5})	583.46	800.43	648.01	543.94	444.70
Sulfur Oxides (SO _x)	15,731.10	15,575.19	17,440.48	15,394.16	19,246.07
Nitrogen Oxides (NO _x)	10,425.79	15,706.53	15,836.72	12,536.70	8,484.23
Volatile Organic Compounds (VOC)	167.83	185.09	192.87	166.42	194.64
Carbon Monoxide (CO)	5,080.72	4,873.71	5,084.89	4,562.20	5,444.34
Lead (Pb)	0.08	0.09	0.09	0.06	0.02
Hazardous Air Pollutants (HAPs)	179.03	204.35	203.41	126.05	151.52
Ammonia (NH ₃)	45.63	0.18	0.17	6.59	72.50

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 Application, received June 5, 2015;
- 2) 2015 Emissions Inventory Questionnaire, received April 29, 2016; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.
- 4) Part 70 Operating Permit OP2010-126, Issued December 7, 2010
- 5) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition
- 6) U.S. EPA's Factor Information Retrieval (FIRE) Data System 6.25
- 7) 2006, 2007, 2008, 2009, and 2010 Emissions Inventory Questionnaires
- 8) Construction Permit 0278-001, Issued February 6, 1978
- 9) Construction Permit 0380-011, Issued March 20, 1980
- 10) Construction Permit 0380-011A, Issued January 24, 1983
- 11) Construction Permit 0380-011B, Issued September 23, 1987
- 12) Construction Permit 0380-011C, Issued August 12, 1988
- 13) Construction Permit 0181-002, Issued December 29, 1980
- 14) No Construction Permit Required Determination, Issued September 25, 1990
- 15) Construction Permit 0493-017, Issued April 29, 1993
- 16) Construction Permit 0493-017A, Issued August 30, 1993
- 17) No Construction Permit Required Determination, Issued December 1, 1993

- 18) Construction Permit 0596-041, Issued May 24, 1996
- 19) Construction Permit 0596-041A, Issued October 24, 2000
- 20) No Construction Permit Required Determination, Issued October 29, 1999
- 21) No Construction Permit Required Determination, Issued October 2, 2000
- 22) No Construction Permit Required Determination, Issued September 6, 2001
- 23) No Construction Permit Required Determination, Issued December 21, 2001
- 24) Temporary Construction Permit 112002-006, Issued November 18, 2002
- 25) No Construction Permit Required Determination, Issued May 15, 2003
- 26) No Construction Permit Required Determination, Issued January 6, 2005
- 27) No Construction Permit Required Determination, Issued October 24, 2005
- 28) No Construction Permit Required Determination, Issued August 2, 2005
- 29) No Construction Permit Required Determination, Issued March 29, 2006
- 30) No Construction Permit Required Determination, Issued May 24, 2006
- 31) No Construction Permit Required Determination, Issued July 21, 2006
- 32) No Construction Permit Required Determination, Issued November 21, 2006
- 33) Construction Permit 122009-002, Issued December 2, 2009
- 34) Construction Permit 122010-011, Issued December 17, 2010
- 35) No Construction Permit Required Determination, Issued October 17, 2013
- 36) No Construction Permit Required Determination, Issued November 15, 2012
- 37) Construction Permit 012013-001, Issued January 4, 2013
- 38) Construction Permits 042013-002, Issued April 8, 2013 and 042013A, Issued March 24, 2014
- 39) Construction Permits 122014-004, Issued December 16, 2014 and 122014-004A, Issued May 26, 2015
- 40) No Construction Permit Required Determination, Issued May 21, 2015
- 41) Acid Rain Permit Renewal
- 42) CAIR Permit

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program (APCP) 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

This rule is not applicable because the installation is in an ozone attainment area.

Construction Permit History

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 001).

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 deminimis 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 capitol 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 0.07 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.

No Construction Permit Required Determination, Issued October 17, 2013:

- ◆ This applicability determination is for the replacement of portions of the steam turbines for Units 2 and 3. The projects are designed to improve the efficiency of the steam turbines and reduce the ratio of fuel burned to electrical generation. An emissions increase does not occur as a result therefore no permit is required.

No Construction Permit Required Determination, Issued November 15, 2012:

- ◆ This applicability determination is for powdered activated carbon injection at Thomas Hill Energy Center Units 1 and 2. The project does not constitute a major modification therefore, no permit is required.

Construction Permits 012013-001, Issued January 4, 2013 & 012013-001A, Issued March 24, 2014:

- ◆ Construction permit 012013-001 authorizes the construction of a fly ash handling system consisting of two enclosed mixers, mixer loadout, disposal haul roads, dump-truck loadout and disposal area activities. The existing system will be kept as a back-up.
- ◆ Construction Permit 012013-001 imposes a 25 ton/year limit on emission units EP-11C, EP11-D, FE-02, FE-03A, FE-08 and FE-09.
- ◆ The amendment to permit 012013-001 was requested to remove the minimum moisture content limit contained in the special conditions of the original permit. The special conditions of the amendment supersede all special conditions in the original permit.

Construction Permits 042013-002, Issued April 8, 2013 and 042013A, Issued March 24, 2014:

This construction permit authorized the construction of a new fly ash handling system. The amendment removed the minimum moisture content limit and allowed alternative emission calculation method for fly ash landfill placement activities. Other changes include changing the ash mixers' compliance tracking basis from hours of operation to ash throughput, updating the fly ash silt content to a higher value and making a typographic correction of the emission units' MHDR.

Construction Permits 122014-004, Issued December 16, 2014 and 122014-004A, Issued May 26, 2015
This construction permit authorized the installation of an M45-PC system to provide Refined Coal to Unit 3 Boiler. The amendment replaced the PM and PM₁₀ limits and the performance testing requirements with allowable additive rates for Additives A1, A2 and B.

No Construction Permit Required Determination, Issued May 21, 2015

This project determined that no permit was required for the installation of a replacement emergency water pump for the fire suppression/sprinkler system.

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. This NSPS was proposed prior to November 15, 1990, and Boiler 3 uses an ESP to meet the emission limitation. 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, thus they are not subject. EP05 Boilers are each rated at 155.6 MMBtu/hr and thus not subject

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.

40 CFR Part 60 Subpart IIII – *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* is applicable to EP07C Emergency Fire Pump Engine. The engine was manufactured in 2014 as a certified National Fire Protection Association (NFPA) fire pump engine.

Maximum Achievable Control Technology (MACT) Applicability

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

EP01 Boiler 1, EP02 Boiler 2, and EP03 Boiler 3 are subject to this subpart and 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).

40 CFR Part 63 Subpart DDDDD, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters*

EP01 Boiler 1, EP02 Boiler 2, and EP03 Boiler 3 are not subject to this regulation because electric utility steam generating units covered by 40 CFR Part 63 Subpart UUUUU are not subject to Subpart DDDDD according to §63.7491(a). EP04 Auxiliary Boiler AB1 and EP05 Auxiliary Boilers AB3A and AB3B are subject to this subpart.

40 CFR Part 63 Subpart JJJJJ, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*

No units at this facility are subject to this regulation because it is not an area source of Hazardous Air Pollutant emissions.

40 CFR Part 63, Subpart ZZZZ—*National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*

EP07A and EP07C Emergency Diesel Generators for Boilers 1, 2 and 3 are subject to this Subpart and 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. EP07 C Emergency Fire Pump Engine is also subject to this Subpart but it demonstrates compliance by complying with the requirements of 40 CFR Part 60 Subpart IIII.

40 CFR Part 63 Subpart CCCCC, *Gasoline Dispensing Facilities*, does not apply to this facility since it is not an area source of HAPS according to the following definition from 40 CFR Part 63 Subpart A: “Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.”

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

In the permit application and according to APCP records, there was no indication that any Missouri Air Conservation Law, Asbestos Abatement, 643.225 through 643.250; 10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants, Subpart M, National Standards for Asbestos; and 10 CSR 10-6.250, Asbestos Abatement Projects - Certification, Accreditation, and Business Exemption Requirements apply to this installation. The installation is subject to these regulations if they undertake any projects that deal with or involve any asbestos containing materials. None of the installation's operating projects underway at the time of this review deal with or involve asbestos containing material. Therefore, the above regulations were not cited in the operating permit. If the installation should

undertake any construction or demolition projects in the future that deal with or involve any asbestos containing materials, the installation must follow all of the applicable requirements of the above rules related to that specific project.

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 was applicable to Boilers 1, 2 and 3 in the previous operating permit due to the PM limits from 40 CFR Part 60 Subpart D, however these units are now subject to a more stringent 40 CFR Part 63 Subpart UUUUU and are thus exempt from CAM per §64.2(b)(i).

Greenhouse Gas Emissions

Note that this source is subject to the 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; therefore, the installation’s CO₂ emissions were not included within this permit. The applicant is required to report the data directly to EPA. The public may obtain CO₂ emissions data for this installation by visiting <http://epa.gov/ghgreporting/ghgdata/reportingdatasets.html>.

Other Regulatory Determinations

10 CSR 10-6.405, *Restriction of Particulate Matter Emissions from Fuel Burning Equipment Used for Indirect Heating* is not applied to the following Emission Units because they burn #2 Fuel Oil and per 10 CSR 10-6.405(1)(C), are deemed in compliance:

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		

10 CSR 10-6.405 *Restriction of PM Emissions From Fuel Burning Equipment Used For Indirect Heating* is applicable to the following units, but has not been applied within this permit:

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

This regulation would apply a 0.18 lb/MMBtu filterable PM annual average standard to the boilers. This is based on the equation for existing installations in the outstate area with a maximum heat input capacity between 10 and 10,000 MMBtu/hr, $E = .90Q^{-.174}$. The 0.18 lb/MMBtu filterable PM annual average limit is less stringent than the 0.03 lb/MMBtu filterable PM 30-day rolling average limit for Boilers 1 through 3 in MACT UUUUU; therefore, only the more stringent standard has been applied in this permit.

10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants* is not applicable EP03 Boiler 3 as it is subject to a more stringent opacity standard under 40 CFR Part 60 Subpart D. EP01 and EP02 are subject to this regulation.

10 CSR 10-6.261, *Control of Sulfur Dioxide Emissions* does not apply to EP03 Boiler 3 and EP07C Emergency Fire Pump because they are both subject to a more restrictive SO₂ limit under 10 CSR 10-6.070 and is thus exempt according to 10 CSR 10-6.261(1)(C)2.

10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds* does not apply to EP03 Boiler 3 and EP07C Emergency Fire Pump because they are subject to an SO₂ emission limit under 10 CSR 10-6.070 and is thus exempt according to 10 CSR 10-6.260(1)(A)1.

EP4 and EP5 are subject to an 8 lb/MMBtu emission limit. The following calculations demonstrate that when fuel is used with a sulfur content less than 0.05% these units will be in compliance with the limit:

Emission Unit	MHDR (Mgal/hr)	Maximum Heat input rate (MMBtu/hr)	Emission Factor (lb/Mgal)	PTE (lb/MMBtu)
EP4	0.912	12.6	143.6 x s = 7.18	0.052
EP5	1.111	155.6	143.6 x s = 7.18	0.051
EP06F and EP06G	0.173	2.5	143.6 x s = 7.18	0.56

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 ACP'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 ACP a schedule for achieving compliance for that regulation(s).

Response to Public Comments

The draft Part 70 Operating Permit for AECI – Thomas Hill Energy Center (175-0001) was placed on public notice as of April 28, 2017 for a 30-day comment period. The public notice was published on the Department of Natural Resources' Air Pollution Control Program's web page at: <http://www.dnr.mo.gov/env/apcp/PermitPublicNotices.htm>. On May 16, 2017 the Air Pollution Control Program received comments from Mark Smith, EPA Region 7. The comments are addressed below in the order in which they appear within the letter.

Comment #1: Operational Limitation 1, in Plant Wide Permit Condition PW001, requires the permittee to totally enclose all conveyors constructed after August 30, 1993, and 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. The Monitoring / Record keeping, as presented in Plant Wide Permit Condition PW001, does not appear to discuss how AECI-Thomas Hill monitors for "dusting problems." Also, EPA is concerned that the term "dusting problems" is too vague to be enforceable as a practical matter. Vague permit provisions may preclude the permittee from understanding its obligations and preclude regulators and the public from ensuring the permittee is in compliance. EPA recommends MDNR consider operational limits that are definitive and measurable.

Response to Comment: A footnote to permit condition PW001 has been added to define "dusting problems" as a violation of the 20% opacity standard imposed on the conveyors by NSPS Subpart Y which is included in the operating permit as permit condition 006. Permit Condition 006 prescribes a monitoring and recordkeeping schedule for the conveyors to demonstrate compliance with the opacity limit.

Comment #2: Monitoring/Record keeping requirement 1, directs the permittee to monitor and record the operating pressure drop across the control device at least once each week that the unit is operating, and the operating pressure drop shall be maintained within the design conditions specified by the manufacturer's warranty. While pressure drop monitoring and recording across a baghouse once per week may eventually provide an indication of a baghouse malfunction, EPA encourages MDNR and AECI-Thomas Hill to consider the use of modern monitoring technology for the baghouse(s) through the use of broken bag detection systems.

Response to Comment: The requirement to monitor and record the pressure drop across the baghouses comes from construction permit 0493-017A and is not required in order to comply with a particulate matter emission limitation. There are no additional federal or state regulations that apply to these emission units which require the use of baghouses for particulate matter control and that require continuous monitoring of the baghouses with bag leak detection systems. An article on the EPA website entitled Monitoring by Control Technique - Fabric Filters, lists several indicators of baghouse performance including measuring particulate matter outlet concentration with a CEMS or monitoring bag breakage and leakage with a bag leak detection system. Opacity monitoring is also listed as an indicator of fabric filter performance along with pressure differential, temperature, exhaust gas flow rate, cleaning mechanism operation and fan

current. The emission units for which the baghouses are affixed are subject to a 20% opacity standard under NSPS subpart Y which is included in the operating permit as permit condition 006. These requirements along with the monitoring and recordkeeping of pressure drop across the baghouses is deemed acceptable monitoring for these units which do not have a potential to emit high enough to be subject to Compliance Assurance Monitoring (CAM).

Comment #3: 10 CSR 10-6.220-Restriction of Emissions of Visible Air Contaminants, included in the Other Regulatory Determinations section of the Statement of Basis, indicates that this Missouri rule (10 CSR 10-6.220) is not applicable to Boiler 1, Boiler 2, and Boiler 3 (Emission Units EP01, EP02 and EP03), as emission sources regulated by MACT UUUUU and demonstrating compliance with a PM CEMS are exempt. However, Permit Condition 003 and Permit Condition 006 appear to indicate AECI-Thomas Hill is using a COMS in lieu of a PM CEMS. If AECI-Thomas Hill is in fact using a PM CEMS to demonstrate compliance with MACT UUUUU, MDNR may wish to revise the Standards and Monitoring/Testing requirements in Permit Condition 003 and the Demonstrating Continuous Compliance section of Permit Condition 006.

Response to Comment: The permittee is demonstrating compliance with MACT UUUUU through quarterly testing rather than the use of a PM CEMS, therefore 10 CSR 10-6.220 applies to Emission Units EP01 and EP02 Boilers 1 and 2. The rule does not apply to EP03 Boiler 3 because it is subject to a more stringent opacity standard under 40 CFR Part 60 Subpart D. The permit condition for 10 CSR 10-6.220 as applicable to Boilers 1 and 2 has been added to the permit as new Permit Condition 004. All subsequent permit conditions have been renumbered.

Comment #4: It would appear that MDNR is incorporating by reference (IBR) the Maximum Achievable Control Technology Regulations from 40 CFR Part 63, Subpart UUUUU-National Emission Standards for Hazardous Air Pollutants-Coal-and Oil-Fired Electric Utility Steam Generating Units, in Permit Condition 006. While EPA supports and encourages the use of IBR, there is value to be gained by the permittee and the permit writer in studying the specific requirements and standards, culling out those that apply to the installation, and translating the requirements in a logical fashion as permit conditions. It is EPA's guidance that all emission limits, monitoring, record keeping and compliance determination methods be clearly incorporated into the permit condition(s). Notification, reporting and test methods and procedures can continue to be IBR. EPA suggests MDNR consider expanding the Monitoring and Initial Compliance and Performance Testing requirements sections of Permit Condition 006.

Response to Comment: Permit Condition 006 (now 007) has been updated to include more detailed requirements for monitoring including applicable parts of Table 7 of the subpart. A detailed list of required records to be kept has also been included. Additionally, initial compliance and testing has been removed because it has already been completed.

Comment #5: The Compliance requirement in Permit Condition 005 requires the permittee to conduct all performance tests required by §60.8 to demonstrate compliance with the applicable emission standard using methods identified in §60.257. §60.8 requires the performance tests to be completed within 60 days of achieving maximum production but not later than 180 days after initial startup. Therefore, it would appear that startup of the coal conveying systems included in Permit Condition 005 and the subsequent performance testing should have already been completed and this requirement may no longer be applicable.

Response to Comment: The initial compliance requirements have been removed from permit condition 005 (now permit condition006).

Comment #6: Monitoring and Record keeping requirement 1, in Permit Condition 008, requires the permittee to retain the calculations in the Statement of Basis which demonstrate that the SO₂ emission limitation will not be exceeded while combusting fuel oil #2 containing less than 0.05 percent sulfur. Permit Condition 008 implies that it is written for Emission Units EP04, EP05, EP06F and EP06G. However, the calculations in the Statement of Basis only include Emission Units EP04 and EP05. EPA recommends MDNR consider including all four (4) emission units in the calculations in the Statement of Basis.

Response to Comment: Emission Units EP06G and EP06G – Space Heaters have been added to the compliance demonstration calculations in the statement of basis.

Comment #7: The Emission Limitation in Permit Condition 011 says "Emissions from any new source operation (installed or under construction in the Kansas City Metropolitan Area after September 25, 1968) shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide or more than thirty-five milligrams per cubic meter (35 mg/cubic meter) of sulfuric acid or sulfur trioxide or any combination of these three gases averaged on any non-consecutive three (3)-hour period." AEI- Thomas Hill is located in Clifton Hill which is in Randolph County, neither of which is part of the Kansas City Metropolitan area, as defined in 10 CSR 10-6.020(K)(1). EPA suggests MDNR re-evaluate whether or not Permit Condition 011 is applicable.

Response to Comment: The phrase “installed or under construction in the Kansas City Metropolitan Area after September 25, 1968” has been removed from permit condition 011 (now 012).

Comment #8: Emission Limitations in Permit Condition 016 limit the emergency fire pump engine (Emission Unit EP07C) to 4.0 g/KW-hr (3.0 g /HP-hr) of NMHC+NO_x and 0.2 g/KWQ-hr (0.15 g/HP-hr) PM. However, there are no monitoring requirements in Permit Condition 016 to determine the actual emissions of NMHC+NO_x, and PM. It is unclear to EPA how the permittee, regulatory agency and public verify compliance. MDNR may want to consider an explanation as to how the permittee verifies compliance with these emission limits.

Response to Comment: The following requirement is included in permit condition 016 (now 017) under *Operational Standards*: “The permittee must comply with this subpart by purchasing an engine certified to the emission standards. The engine must be installed and configured according to the manufacturer’s emission-related specifications. [§60.4211(c)]” Installing a certified engine ensures that the engine will meet the emission limits under subpart III.

Comment #9: Permit Condition 017 requires the permittee to control emissions from the new fly-ash load-out point (Emission Unit EP11D), authorized by no construction permit required determination of November 21, 2006, 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 with only visible emissions monitoring using U.S. EPA Method 22-like procedures required of the permittee. While visible observations might provide an indication of baghouse malfunction, EPA would

encourage MDNR and AECI-Thomas Hill to strongly consider the use of the modern monitoring technique such as broken bag detection system for baghouse monitoring.

Response to Comment: The use of the baghouse for EP-11D Units 1 and 2 Fly Ash Mixer Loadout is a voluntary condition taken by the permittee in response to a construction permit determination. There are no particulate matter emissions limitations associated with the permit condition that rely on the baghouse for compliance. The permittee does not currently operate a bag leak detection system on this baghouse and it isn't believed to be necessary in this circumstance where there is no underlying emission limitation. According to an article on the EPA website entitled Monitoring by Control Technique - Fabric Filters, visible emissions monitoring is an adequate option for ensuring that the baghouse is operating properly.

Comment #10: Permit Condition 020 restricts PM emissions to less than 25.0 tons in any consecutive 12-month period from fly-ash handling system installed as authorized by Permit to Construct #012013-001A issued March 24, 2014. The Monitoring/ Record keeping requirement, in Permit Condition 020, requires the permittee to develop and use forms to demonstrate compliance and the forms should contain at a minimum: ·

- a) Installation name
- b) Installation ID
- c) Permit number
- d) Current month
- e) Current 12-month date range
- f) Emission units and respective current month throughput
 - i. EP11C and EP11D ash mixers, tons
 - ii. FE2 disposal truck route, miles driven
 - iii. FE3 disposal area truck loadout, tons
 - iv. FE8 disposal bulldozer, hours
- g) Emission unit respective emission factors
 - i. 0.0017 lb/ton
 - ii. 1.1341 lb/mile
 - iii. 0.0017 lb/ton
- h) Current month's fly ash silt% and moisture% obtained from testing, for use in calculated FE8
- i) FE8 PM Emission rate (lb/hr) using the following equation
$$= \frac{5.7 D \% \text{Silt}}{\% \text{Moisture}} \times 1.2 \times 53 \times 260$$
(Where the variables are expressed with the % sign, e.g. 9.4% as 9.4)
- j) Current month's PM emissions
- k) 12-month PM emissions from previous month
- l) Current month's PM emissions from last year
- m) 12-month rolling PM emissions
- n) Indication of compliance status

However, based on EPA's response to the order granting in part a petition for objection to the operating permit for Yuhuang Chemical Inc.-Methanol Plant in St. James Parish Louisiana (August

31, 2016), Permit Condition 020 may not be enforceable. In the petition, EPA requires that for emission limits to be enforceable, the permittee must clearly specify how (emphasis added) emissions will be measured and/or determined for demonstrating compliance with the limits. This draft Part 70 operating permit does not explain how the data, required to be collected in Permit Condition 020, is used to demonstrate compliance with the PM limit. Therefore, MDNR is encouraged to ensure the final permit clearly demonstrates how AECI-Thomas Hill calculates actual PM emissions to demonstrate compliance. To the extent that the final permit depends on emission factors for calculating emissions, the permit should specify the source of the emission factors.

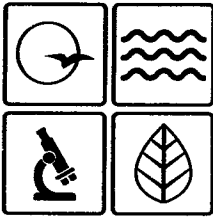
Response to Comment: The monitoring/recordkeeping requirements for permit condition 020 have been updated to include the equation for calculating the monthly PM emissions from each emission unit and the equation for calculating the rolling 12-month emissions of PM. Using the emission factors provided with the

Comment #11: Permit Condition 020 includes Haul Road Controls the permittee shall implement, however, these requirements in Permit Condition 020 appear to be redundant in light of the requirements in Permit Condition 001. EPA suggests MDNR consider combining all haul road controls into one permit condition for clarity and consistency.

Response to Comment: The requirements for Haul Roads (best management practices) that apply to FE2 – Fly Ash Hauling to Landfill in permit condition 020 have been combined with Permit Condition 001. FE2 has been added to the table of emission units subject to Permit Condition 001 and Construction Permit 122014-004, Issued December 16, 2004 has been added to the heading for Permit Condition 001.

Comment #12: Construction Permit History section in the Statement of Basis indicates the special condition(s) from Permit to Construct 0181-002, issued December 29, 1980, has been applied in Plant Wide Permit Condition PW002. However, this draft Part 70 operating permit does not include a Plant Wide Permit Condition PW002. EPA suggests MDNR provide further explanation as to the location of the special conditions from Permit to Construct 0181-002.

Response to Comment: The requirements from construction permit 0181-002, Issued December 29, 1980 are in the operating permit under Permit Condition 001. The statement of basis has been corrected to state that the reader should see Permit Condition 001 for these permit conditions



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Eric R. Greitens, Governor

Carol S. Comer, Director

AUG 11 2017

Mr. Stephen Iwanowicz
Thomas Hill Energy Center
5693 Highway F
Clifton Hill, MO 65244

Re: Thomas Hill Energy Center , 175-0001
Permit Number: 2015-06-024

Dear Mr. Iwanowicz:

Enclosed with this letter is your 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.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at <http://dnr.mo.gov/regions/>. The online CAV request can be found at <http://dnr.mo.gov/cav/compliance.htm>.

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.



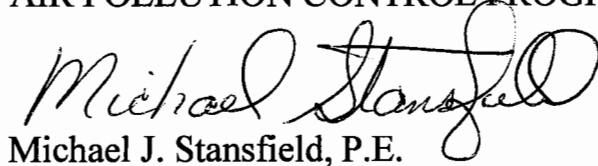
Recycled paper

Mr. Stephen Iwanowicz
Page Two

If you have any questions or need additional information regarding this permit, please contact the Air Pollution Control Program (APCP) at (573) 751-4817, or you may write to the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

A handwritten signature in black ink, reading "Michael J. Stansfield". The signature is written in a cursive style with a large, stylized "M" and "S".

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

MJS:jwj

Enclosures

c: PAMS File: 2015-06-024