



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

## DEPARTMENT OF NATURAL RESOURCES

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**JAN 11 2016**

Mr. Brent Ross  
Holden Power Plant  
P.O. Box 126  
Holden, MO 64040

Re: Holden Power Plant, 101-0051  
Permit Number: OP2015-041

Dear Mr. Ross:

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.

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

If you have any questions or need additional information regarding this permit, please contact the Air Pollution Control Program 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 that reads "Michael J. Stansfield". The signature is written in a cursive style.

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

MJS:jwl

Enclosures

c: PAMS File: 2014-09-019



# 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:** OP2015-041  
**Expiration Date:** JAN 11 2021  
**Installation ID:** 101-0051  
**Project Number:** 2014-09-019

**Installation Name and Address**

Holden Power Plant  
100 SW State Route 131, P.O. Box 126  
Holden, MO 64040  
Johnson County

**Parent Company's Name and Address**

Associated Electric Cooperative, Inc.  
2814 S. Golden  
Springfield MO, 65801

**Installation Description:**

The Holden Power Plant is a peaking power generating station located in Holden, Missouri. The installation consists of three (3) 121-Megawatt (MW) simple-cycle dual fuel combustion turbines, a 1.5 million-gallon fuel oil storage tank, a 3.0 MMBtu/hr fuel oil heater, and a 15 MMBtu/hr fuel gas heater. This facility is major for PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub> and CO and is subject to the Acid Rain program, 40 CFR Part 60 Subpart GG and 40 CFR Part 63 Subpart ZZZZ.

Prepared by  
Jill Wade, PE  
Operating Permit Unit

Director or Designee  
Department of Natural Resources

JAN 11 2016

Effective Date

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## I. Installation Description and Equipment Listing

### INSTALLATION DESCRIPTION

The Holden Power Plant is a peaking power generating station located in Holden, Missouri. The installation consists of three (3) 121-Megawatt (MW) simple-cycle dual fuel combustion turbines, a 1.5 million-gallon fuel oil storage tank, a 3.0 MMBtu/hr fuel oil heater and a 15 MMBtu/hr fuel gas heater.

<b>Reported Air Pollutant Emissions, tons per year</b>					
Pollutants	2013	2012	2011	2010	2009
Particulate Matter ≤ Ten Microns (PM <sub>10</sub> )	0.43	2.34	0.85	0.17	1.57
Particulate Matter ≤ 2.5 Microns (PM <sub>2.5</sub> )	0.42	2.34	0.85	0.17	1.56
Sulfur Oxides (SO <sub>x</sub> )	0.17	0.87	0.54	0.35	0.71
Nitrogen Oxides (NO <sub>x</sub> )	3.71	18.51	6.78	1.62	12.31
Volatile Organic Compounds(VOC)	0.28	1.63	0.58	0.11	1.08
Carbon Monoxide (CO)	0.88	0.76	0.64	0.71	0.76
Hazardous Air Pollutants (HAPs)	---	0.02	0.01	---	0.02

### 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.

<u>Emission Unit #</u>	<u>Description of Emission Unit</u>
EU01	Combustion Turbine Unit 1 (EP01)
EU02	Combustion Turbine Unit 2 (EP02)
EU03	Combustion Turbine Unit 3 (EP03)
EU05	Fuel Oil Heater (EP05)
EU07	Emergency Diesel Fire Water Pump (EP07)

### EMISSION UNITS WITHOUT LIMITATIONS

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

<u>Description of Emission Source</u>
15 MMBtu/hr Fuel Gas Heater (EP06)
Hydrochloric Acid Containers (5) (IA01)
50-Gallon Bisulfite Container (1) (IA02)

- 50-Gallon Sodium Hydroxide Containers (2) (IA03)
- 50-Gallon Anti-Scalant Container (1) (IA04)
- 1,000-Gallon Propane Storage Tanks (3) (IA05)
- 100-LB Miscellaneous Calibration-Gas Cylinders (15-20) (IA06)
- 40-50 Gallon Container – Chlorinating System For Drinking Water (1) (IA08)
- 250-Gallon Fuel Oil Day Tank For Diesel Generator (1) (IA09)
- 1.5 Million Gallon Number 2 Fuel Oil Storage Tank (EP04)

## **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.

None.

### 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.

<b>PERMIT CONDITION 001</b>			
10 CSR 10-6.060 Construction Permits Required			
Construction Permit No. 022001-014A, Issued September 18, 2003			
Emission Unit	Description	Manufacturer/Model #	2013 EIQ Reference #
EU01	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800444 Generator Serial #12006190	EP01
EU02	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800445 Generator Serial #12006191	EP02
EU03	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800446 Generator Serial #12006192	EP03

**Operational Limitations:**

- 1) No fuels other than natural gas and/or low sulfur fuel oil shall be combusted in the simple-cycle turbine generators at this installation. Sulfur content in the fuel oil shall not exceed 0.05% by weight. [Condition 1]
- 2) The permittee shall limit the total hours of operation of this installation to less than 4,000 hours in any consecutive 12-month rolling total. [Condition 2]
- 3) The permittee shall limit the total hours of operation when burning natural gas of each of the Siemens model V84.2 simple-cycle turbine generators (EU01 through EU03) to less than 2,000 hours in any consecutive 12-month rolling total. [Condition 3]
- 4) The permittee shall limit the total hours of operation when burning low sulfur fuel oil of each of the Siemens model V84.2 simple-cycle turbine generators (EU01 through EU03) to less than 500 hours in any consecutive 12-month rolling total. [Condition 4]
- 5) The permittee shall not operate any turbine at loads less than 60% unless the turbine is in startup or shutdown mode. For the purposes of permit 022001-014, startup and shutdown modes are defined as those periods of time that a turbine is operating at less than 60% load. [Condition 26]

**Monitoring/Recordkeeping:**

- 1) Fuel oil sampling for percent sulfur by weight is required on a monthly basis in order to demonstrate compliance with Operational Limitation No. 1. [Special Condition 1]
- 2) The permittee shall keep monthly records that are adequate to determine compliance with Operational Limitation No. 2 (total installation hours of operation). Attachment A, *Installation Hours Compliance Worksheet*, or an equivalent form of the company’s own design, is suitable for

this purpose. The most recent 60 months of records shall be maintained on-site and shall be made immediately available to Missouri Department of Natural Resources' personnel upon request.  
[Condition 10]

- 3) The permittee shall keep monthly records that are adequate to determine compliance with Operational Limitation No. 3 (individual turbine hours of operation when burning natural gas). Attachment B, *Generator Hours Compliance Worksheet – Natural Gas*, or an equivalent form of the company's own design, is suitable for this purpose. The most recent 60-months of records shall be maintained on-site and shall be made immediately available to Missouri Department of Natural Resources' personnel upon request. [Condition 11]
- 4) The permittee shall keep monthly records that are adequate to determine compliance with Operation Limitation No. 4 (individual turbine hours of operation when burning low sulfur fuel oil). Attachment C, *Generator Hours Compliance Worksheet – Fuel Oil*, or an equivalent form of the company's own design, is suitable for this purpose. The most recent 60-months of records shall be maintained on-site and shall be made immediately available to Missouri Department of Natural Resources' personnel upon request. [Condition 12]
- 5) The permittee shall maintain records during periods of startup and shutdown that include the amount of time required for each cycle and time that the turbines are operated at less than 60% load.  
[Condition 27]

**Reporting:**

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of each month if the 12-month cumulative total records show that the source exceeded the limitation of Operational Limitation No. 2 (4,000-hours of operation). [Condition 21]
- 2) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of each month if the 12-month cumulative total records show that the source exceeded the limitation of Operational Limitation No. 3 (2,000-hours of operation per turbine when burning natural gas). [Condition 22]
- 3) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of the each month if the 12-month cumulative total records show that the source exceeded the limitation of Operational Limitation No. 4 (500-hours of operation per turbine when burning low sulfur fuel oil).  
[Condition 23]
- 4) The permittee shall report any deviations from the operational limitations, monitoring/recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

<b>PERMIT CONDITION 002</b>			
10 CSR 10-6.060 Construction Permits Required			
Construction Permit No. 022001-014A, Issued September 18, 2003			
Emission Unit	Description	Manufacturer/Model #	2013 EIQ Reference #
EU01	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800444 Generator Serial #12006190	EP01
EU02	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800445 Generator Serial #12006191	EP02
EU03	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800446 Generator Serial #12006192	EP03

**Emission Limitations:**

- 1) Except during periods of startup and shutdown, the permittee shall limit NO<sub>x</sub> emissions from each of the Siemens model V84.2 simple-cycle turbine generators (EP-1 through EP-3) to 15 parts per million by volume (ppmvd) corrected to 15 percent oxygen on a dry basis and expressed as a three (3) hour average when burning natural gas. [Condition 5.A.]
- 2) Except during period of startup and shutdown, the permittee shall limit NO<sub>x</sub> emissions from each of the Siemens model V84.2 simple-cycle turbine generators (EP-1 through EP-3) to 42 ppmvd corrected to 15% oxygen on a dry basis and expressed as a three (3) hour average when burning low sulfur fuel oil. [Condition 5.B.]

**Monitoring/Recordkeeping:**

- 1) The permittee shall install, calibrate, maintain, and operate continuous monitoring systems and record the output of the systems, for measuring NO<sub>x</sub> emissions discharged into the atmosphere. These systems shall be placed in an appropriate location on each turbine’s flue gas exhaust such that accurate readings are possible. [Condition 19]
- 2) The CEMS required by Special Condition 19 of Construction permit 022001-014 shall be installed and operated according to the guidelines in 40 CFR Part 75 for the NO<sub>x</sub> and diluents CEMS requirements. [Condition 20]

**Reporting:**

- 1) The permittee shall report any deviations from the emission limitations, monitoring/recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.
- 2) The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of each month, if the emission limits of this permit condition are exceeded.

<b>PERMIT CONDITION 003</b>			
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 022001-014A, Issued September 18, 2003			
Emission Unit	Description	Manufacturer/Model #	2013 EIQ Reference #
EU01	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800444 Generator Serial #12006190	EP01
EU02	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800445 Generator Serial #12006191	EP02
EU03	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800446 Generator Serial #12006192	EP03

**Emission Limitations:**

The permittee shall not discharge into the atmosphere from this installation SO<sub>x</sub> in excess of sixty (60) tons in any consecutive 12-month rolling total. [Condition 8]

**Monitoring/Recordkeeping:**

- 1) Sulfur dioxide (SO<sub>2</sub>) emissions from this operation shall be calculated based on fuel sulfur analysis and fuel flow. [Condition 8]
- 2) The sulfur content of the natural gas will initially be determined prior to completion of the compliance stack tests, and once per year, thereafter. [Condition 8]
- 3) The sulfur content of the fuel oil will be determined from the first delivery made in the unit and annually, for years in which fuel oil is delivered to the site, thereafter. [Condition 8]
- 4) The permittee shall keep monthly records that are adequate to determine the SO<sub>x</sub> emissions from this installation. These records shall also indicate the total quantity of SO<sub>x</sub> emissions from the installation over the previous 12-month period. Attachment D, *SO<sub>x</sub> Compliance Worksheet*, or an equivalent form of the company's own design, is suitable for this purpose. The most recent 60-months of records shall be maintained on-site and shall be made immediately available to Missouri Department of Natural Resources' personnel upon request. [Condition 14]

**Reporting Requirements:**

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of each month, if the 12-month cumulative total records show that the source exceeded the limitation of 60 tons of SO<sub>x</sub>. [Condition 25]
- 2) The permittee shall report any deviations from the emission limitations, monitoring/recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

<b>PERMIT CONDITION 004</b>			
10 CSR 10-6.060 Construction Permits Required			
Construction Permit No. 022001-014A, Issued September 18, 2003			
Emission Unit	Description	Manufacturer/Model #	2013 EIQ Reference #
EU01	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800444 Generator Serial #12006190	EP01
EU02	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800445 Generator Serial #12006191	EP02
EU03	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800446 Generator Serial #12006192	EP03

**Emission Limitations:**

- 1) Except during periods of startup and shutdown, the permittee shall limit CO emissions from each of the Siemens model V84.2 simple-cycle turbine generators (EU01 through EU03) to 35 ppmvd corrected to 15% oxygen on a dry basis and expressed as a three (3) hour average when burning natural gas. [Condition 6.A.]
- 2) Except during periods of startup and shutdown, the permittee shall limit CO emissions from each of the Siemens model V84.2 simple-cycle turbine generators (EU01 through EU03) to 35 ppmvd corrected to 15% oxygen on a dry basis and expressed as a three (3) hour average when burning low sulfur fuel oil. [Condition 6.B.]

**Recordkeeping:**

Maintain records of the performance tests required by Construction Permit 022001-014.

**Reporting:**

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

<b>PERMIT CONDITION 005</b>			
10 CSR 10-6.060 Construction Permits Required			
Construction Permit No. 022001-014A, Issued September 18, 2003			
Emission Unit	Description	Manufacturer/Model #	2013 EIQ Reference #
EU01	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800444 Generator Serial #12006190	EP01
EU02	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800445 Generator Serial #12006191	EP02
EU03	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800446 Generator Serial #12006192	EP03

**Emission Limitations:**

- 1) Except during periods of startup and shutdown, the permittee shall limit PM<sub>10</sub> emissions from each of the Siemens model V84.2 simple-cycle turbine generators (EU01 through EU03) to 0.023 pounds per million Btu (lb/MMBtu) of heat input when burning natural gas. [Condition 7.A.]
- 2) Except during periods of startup and shutdown, the permittee shall limit PM<sub>10</sub> emissions from each of the Siemens model V84.2 simple-cycle turbine generators (EU01 through EU03) to 0.034 lb/MMBtu of heat input when burning low sulfur fuel oil. [Condition 7.B.]

**Recordkeeping:**

Maintain records of the performance tests required by Construction Permit 022001-014.

**Reporting:**

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

<b>PERMIT CONDITION 006</b>			
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 022001-014A, Issued September 18, 2003			
Emission Unit	Description	Manufacturer/Model #	2013 EIQ Reference #
EU01	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800444 Generator Serial #12006190	EP01
EU02	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800445 Generator Serial #12006191	EP02
EU03	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800446 Generator Serial #12006192	EP03

**Emission Limitation:**

The permittee shall not discharge into the atmosphere from this installation formaldehyde in excess of ten (10) tons in any consecutive 12-month rolling average. [Condition 9]

**Monitoring/Recordkeeping:**

The permittee shall keep monthly records that are adequate to determine the formaldehyde emissions from this installation. These records shall also indicate the total quantity of formaldehyde emissions from the installation over the previous 12-month period. Attachment E, *Formaldehyde Compliance Worksheet*, or an equivalent form of the company’s own design, is suitable for this purpose. The most recent 60-month of records shall be maintained on-site and shall be made immediately available to Missouri Department of Natural Resources’ personnel upon request. [Condition 13]

**Reporting:**

- 1) The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of each month, if the 12-month cumulative total records show that the source exceeded the limitation of 10 tons of formaldehyde. [Condition 24]
- 2) Should the emission testing for formaldehyde required above indicate that the formaldehyde emissions from this installation will exceed the ten (10) ton per year emission limitation, Holden Power Plant must submit an application to control HAP emissions according to 10 CSR 10-6.060(9). [Condition 28]
- 3) The permittee shall report any deviations from the emission 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.

<b>PERMIT CONDITION 007</b>			
10 CSR 10-6.070 New Source Performance Standards 40 CFR Part 60 Subpart GG, Standards of Performance for Stationary Gas Turbines - NO <sub>x</sub>			
Emission Unit	Description	Manufacturer/Model #	2013 EIQ Reference #
EU01	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800444 Generator Serial #12006190	EP01
EU02	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800445 Generator Serial #12006191	EP02
EU03	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800446 Generator Serial #12006192	EP03

**Emission Limitation:**

Standard for Nitrogen Oxides:

**NOTE:** These combustion turbines (EU0010, EU0020, and EU0030) are subject to the requirements of §60.333(a)(1) of 40 CFR Part 60 Subpart GG. Since the NO<sub>x</sub> emission standards of Subpart GG (88 ppmv when burning natural gas and 96 ppmv when burning fuel oil) at 15% O<sub>2</sub> on a dry basis as determined by §60.332(a)(1)) are less stringent than the NO<sub>x</sub> emission limits of Construction Permit No. 022001-014A (Permit Condition (EU0010, EU0020, EU0030) – 002, the NSPS §60.332(a)(1) standards are not listed as permit conditions to these units. Compliance with the NO<sub>x</sub> BACT limits will assure compliance with the §60.332(a)(1) standards.

**Monitoring:**

For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which does not use steam or water injection to control NO<sub>x</sub> emissions, the permittee may, but is not required to, for purposes of determining excess emissions, use a CEMS that meets the requirements of paragraph (b) of this section. Also, if the permittee has previously submitted and received EPA, State, or local permitting authority approval of a procedure for monitoring compliance with the applicable NO<sub>x</sub> emission limit under §60.332, that approved procedure may continue to be used. [40 CFR 60.334(c)]

**Reporting:**

- 1) For each affected unit that elects to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under subpart GG, the permittee shall submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows: [§60.334(j)]
  - a) *Nitrogen Oxides.* An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NO<sub>x</sub> concentration exceeds the applicable emission limit in §60.332(a)(1) or (2). [40 CFR 60.334(j)(ii)(A)]

- b) *Ice fog.* Each period during which an exemption provided in §60.332(f) is in effect shall be reported in writing to the Administrator quarterly. For each period the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time the air pollution control system was reactivated shall be reported. All quarterly reports shall be postmarked by the 30<sup>th</sup> day following the end of each calendar quarter. [40 CFR 60.335(j)(3)]
  - c) *Emergency fuel.* Each period during which an exemption provided in §60.332(k) is in effect shall be included in the report required in §60.7(c). For each period, the type, reasons, and duration of the firing of the emergency fuel shall be reported. [40 CFR 60.335(j)(4)]
  - d) All reports required under §60.7(c) shall be postmarked by the 30<sup>th</sup> day following the end of each 6-month period.
- 2) The permittee shall report any deviations from the emission limitation, monitoring, and reporting requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

<b>PERMIT CONDITION 008</b>			
10 CSR 10-6.070 New Source Performance Standards			
40 CFR Part 60 Subpart GG, Standards of Performance for Stationary Gas Turbines - SOx			
Emission Unit	Description	Manufacturer/Model #	2013 EIQ Reference #
EU01	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800444 Generator Serial #12006190	EP01
EU02	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800445 Generator Serial #12006191	EP02
EU03	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800446 Generator Serial #12006192	EP03

**Emission Limitations:**

The permittee shall comply with one or the other of the following conditions:

- 1) The permittee shall not cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent (%) by volume at 15 percent (%) oxygen and on a dry basis. [40 CFR §60.333(a)].
- 2) The permittee shall not burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent (%) by weight. [40 CFR §60.333(b)].

**Monitoring:**

- 1) The permittee shall determine compliance with the sulfur content standard in 40 CFR 60.333(b) as follows: [40 CFR 60.334(h)], and as necessary
  - a) Monitor the total sulfur content of the fuel being fired in the turbine, except as provided in 40 CFR 60.334(h)(3). The sulfur content of the fuel must be determined using total sulfur methods

- described in §60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084–82, 94, D5504–01, D6228–98, or Gas Processors Association Standard 2377–86 (all of which are incorporated by reference-see §60.17), which measure the major sulfur compounds may be used; and [40 CFR 60.334(h)(1)]
- b) Notwithstanding the provisions 40 CFR 60.334(h)(1), the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in §60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration: [40 CFR 60.334(h)(3)]
- i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or [40 CFR 60.334(h)(3)(i)]
- ii) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in Section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 is required. [40 CFR 60.334(h)(3)(ii)]
- 2) The frequency of determining the sulfur and nitrogen content of the fuel shall be as follows:
- a) *Fuel oil*. For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in Sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of appendix D to part 75 of this chapter (*i.e.* flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank). [40 CFR 60.334(i)(1)]
- b) *Gaseous fuel*. For owners and operators that elect not to demonstrate sulfur content using options in 40 CFR 60.334(h)(3), and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day. [40 CFR 60.334(i)(2)]
- c) *Custom schedules*. Notwithstanding the requirements of 40 CFR 60.334(i)(2), operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in 40 CFR 60.334(i)(3)(i), custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in §60.333. [40 CFR 60.334(i)(3)]
- 3) The two custom sulfur monitoring schedules set forth in paragraphs (i)(3)(i)(A) through (D) and in paragraph (i)(3)(ii) of 40 CFR 60.334(i) are acceptable, without prior Administrative approval. [40 CFR 60.334(i)(3)(i)]

**Reporting:**

- 1) For the purposes of reports under §60.7(c) where applicable, periods of excess emissions that shall be reported are defined as follows: [§60.334(j)]
- a) *Sulfur dioxide*. If the permittee is required to monitor the sulfur content of the fuel under 40 CFR 60.334(h):
- i) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight

percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. [40 CFR 60.334(j)(2)(i)]

- ii) If the option to sample each delivery of fuel oil has been selected, the permittee shall immediately switch to one of the other oil sampling options ( *i.e.* , daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.8 weight percent. The permittee shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and shall evaluate excess emissions according to 40 CFR 60.334(j)(2)(i). When all of the fuel from the delivery has been burned, the permittee may resume using the as-delivered sampling option. [40 CFR 60.334(j)(2)(ii)]
  - iii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample. [40 CFR 60.334(j)(2)(iii)]
  - b) *Emergency fuel.* Each period during which an exemption provided in §60.332(k) is in effect shall be included in the report required in §60.7(c). For each period, the type, reasons, and duration of the firing of the emergency fuel shall be reported. [40 CFR 60.334(j)(4)]
- 2) The permittee shall report any deviations from the emission limitations, monitoring, and reporting requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

<b>PERMIT CONDITION 009</b>			
10 CSR 10-6.270 Acid Rain Source Permits Required 40 CFR Part 72, 73 and 75 through 78			
Emission Unit	Description	Manufacturer/Model #	2013 EIQ Reference #
EU01	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800444 Generator Serial #12006190	EP01
EU02	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800445 Generator Serial #12006191	EP02
EU03	Simple-Cycle Gas Turbine Unit; 121 Megawatt (MW) @ ISO Unit; Primary Fuel – Natural Gas (1406 MMBtu/hr)	Siemens/V84.2 Turbine Serial #800446 Generator Serial #12006192	EP03

**Emission Limitation:**

The permittee shall obtain an Acid Rain Source Permit for EU01, EU02 and EU03 pursuant to Title IV of the Clean Air Act.

A Phase II permit is being issued to the permittee in conjunction with this Title V permit and will remain effective for the life of the operating permit (See Attachment F).

**Monitoring/Recordkeeping:**

The permittee shall retain the most current acid rain permit issued to this installation on-site and shall make such permit available to any Department of Natural Resources' personnel upon request.

**Reporting:**

Annual Compliance Certification.

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

<b>PERMIT CONDITION 0010</b>		
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds		
Emission Unit	Description	2013 EIQ Reference #
EU05	3.0 MMBtu/hr Fuel Oil Heater (EP05)	EP05

**Emission Limitation:**

No person shall cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of 8 pounds of sulfur dioxide per million BTUs actual heat input averaged on any consecutive three hour time period.

**Operational Limitation/Equipment Specification:**

The emission unit shall be limited to burning fuel oil with a sulfur content less than 0.05%.

**Monitoring/Recordkeeping:**

- 1) The permittee shall maintain an accurate record of the sulfur content of fuel used. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be maintained for five years.

**Reporting:**

The permittee shall report any deviations from the emission limitation, operational limitation/equipment specification, 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.

<b>PERMIT CONDITION 0011</b>		
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	2013 EIQ Reference #

EU07	0.53 MMBtu/hr (118.6 hp) Emergency Diesel Fire Pump; Installed 2002	EP07
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**Emission Limitations:**

The permittee must meet the following requirements from Table 2d of 40 CFR Part 63 Subpart ZZZZ except during periods of startup:

- 1) Change oil and filter every 500 hours of operation or annually, whichever comes first;
- 2) Inspect air cleaner ever 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- 3) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

**Operational Limitations:**

- 1) You must operate the engine according to the conditions described in the following paragraphs: [§63.6640(f)(2)]
  - a) There is no time limit on the use of emergency stationary RICE in emergency situations.
  - b) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance.
  - c) You may operate your emergency stationary RICE for an additional 50 hours per year in non-emergency situations. 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.
- 2) If you do not operate the engine according to these requirements, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

**Monitoring:**

- 1) The permittee must operate and maintain start up engines according to the manufacturer;s emission-related written instructions. [§63.6625(e)]
- 2) The permittee must install a non-resettable hour meter if one is not already installed. [§63.6625(f)]
- 3) The permittee must minimize the engine’s time spent at idle during startup and minimize the engine’s startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. [§63.6625(h)]

**Continuous Compliance:**

- 1) The permittee must demonstrate compliance according to the methods specified in Table 6 to 40 CFR Part 63 Subpart ZZZZ: [§63.6640(a)] for each existing emergency stationary RICE ≤500 HP located at an area source of HAP. The facility shall:
  - a) Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
  - b) Develop and follow a maintenance plan which must 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.

- 2) The permittee must be in compliance with the operating limitations and other requirements in 40 CFR Part 63 Subpart ZZZZ that apply at all times. [§63.6605(a)]
- 3) At all times the permittee must operate and maintain any affected source in a manner consistent with safety and good air pollution control practices for minimizing emissions. [§63.6605(b)]

**Recordkeeping/Reporting:**

- 1) The permittee shall keep records and submit reports as described in §63.6655 (except §63.6655(c)) and Footnote 1 of Table 2d §63.6640(b).\
- 2) The permittee shall submit reports to EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219.
- 3) The permittee shall report any deviations of the monitoring/recordkeeping 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 is only an excerpt from the regulation or code, and is provided for summary purposes only.

### **10 CSR 10-6.045 Open Burning Requirements**

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

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

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
  - a) Name and location of installation;
  - b) Name and telephone number of person responsible for the installation;

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

#### **10 CSR 10-6.060 Construction Permits Required**

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

#### **10 CSR 10-6.065 Operating Permits**

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

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

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

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

- 1) The permittee shall submit 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) The permittee may be required by the director to file additional reports.
- 3) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
- 4) The permittee shall 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.
- 5) The fees shall be payable to the Department of Natural Resources and shall be accompanied by the emissions report.
- 6) The permittee shall complete required reports on state supplied EIQ forms or electronically via MoEIS. Alternate methods of reporting the emissions can be submitted for approval by the director. The reports shall be submitted to the director by April 1 after the end of each reporting year. If the full emissions report is filed electronically via MoEIS, this due date is extended to May 1.
- 7) The reporting period shall end on December 31 of each calendar year. Each report shall contain the required information for each emission unit for the twelve (12)-month period immediately preceding the end of the reporting period.
- 8) The permittee shall collect, record and maintain the information necessary to complete the required forms during each year of operation of the installation.

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

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

**10 CSR 10-6.150 Circumvention**

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

**10 CSR 10-6.170**

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

**Emission Limitation:**

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

**10 CSR 10-6.180 Measurement of Emissions of Air Contaminants**

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

**10 CSR 10-6.165 Restriction of Emission of Odors**

**This requirement is not federally enforceable.**

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour. This odor evaluation shall be taken at a location outside of the installation's property boundary.

**Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone**

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

- a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
  - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
  - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
  - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
- a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
  - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
  - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
  - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
  - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
  - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
- 5) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR part 82*

#### **10 CSR 10-6.280 Compliance Monitoring Usage**

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
  - a) Monitoring methods outlined in 40 CFR Part 64;
  - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and

- c) Any other monitoring methods approved by the director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
  - a) Monitoring methods outlined in 40 CFR Part 64;
  - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
  - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
  - a) Applicable monitoring or testing methods, cited in:
    - i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
    - ii) 10 CSR 10-6.040, "Reference Methods";
    - iii) 10 CSR 10-6.070, "New Source Performance Standards";
    - iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
  - b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

## V. General Permit Requirements

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

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

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

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

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

- iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's 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)**

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

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

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

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

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

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

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

This facility was issued Acid Rain Permit OP2011-041 on August 30, 2011. This permit is being renewed in conjunction with this Part 70 Operating permit and both permits will expire on the same date.

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

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

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

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

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

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

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

None.

### **10 CSR 10-6.065(6)(C)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, 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.

<b>10 CSR 10-6.065(6)(C)6 Permit Shield</b>
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- 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, 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, 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 days notice is provided because of a need to respond more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the 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 application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
  - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
  - b) The permittee must provide contemporaneous written notice of the change to the Air Pollution Control Program, 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)39 Responsible Official**

The application utilized in the preparation of this permit was signed by Brent Ross, Manager, Environmental, Health and Safety. 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. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person 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.

### **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 A**  
Installation Hours Compliance Worksheet

AECI – Holden Power Plant

This sheet covers the period of \_\_\_\_\_.  
(month/year)

**Copy this sheet as needed.**

Hours that the Installation is Producing Electricity = Electricity Hours		
Total Electricity Hours for this Month	(Note 1)	
12-Month Total Electricity Hours From Previous Month's Worksheet	(Note 2)	
Monthly Total Electricity Hours From Previous Year's Worksheet	(Note 3)	
Current 12-Month Total Electricity Hours	(Note 4)	

Note 1: Total number of hours that this installation was producing electricity for this month (electricity hours).

Note 2: Running 12-month total of electricity hours from previous month's worksheet.

Note 3: Electricity hours reported for this month in the last calendar year.

Note 4: Amount reported in Note 2 minus amount reported in Note 3 plus amount reported in Note 1. Less than 4,000 hours indicates compliance.

**Attachment B**  
Generator Hours Compliance Worksheet – Natural Gas

AECI – Holden Power Plant

This sheet covers the period of \_\_\_\_\_.  
(month/year)

This sheet is for Turbine Number \_\_\_\_\_

**Copy this sheet as needed.**

Hours that a Turbine is Burning Natural Gas = Unit Gas Hours		
Total Unit Gas Hours for this Month	(Note 1)	
12-Month Total Unit Gas Hours From Previous Month's Worksheet	(Note 2)	
Monthly Total Unit Gas Hours From Previous Year's Worksheet	(Note 3)	
Current 12-Month Total Unit Gas Hours	(Note 4)	

Note 1: Total number of hours that this installation was burning natural gas for this month (unit gas hours).

Note 2: Running 12-month total of unit gas hours from previous month's worksheet.

Note 3: Unit gas hours reported for this month in the last calendar year.

Note 4: Amount reported in Note 2 minus amount reported in Note 3 plus amount reported in Note 1. Less than 2,000 hours indicates compliance.

**Attachment C**  
 Generator Hours Compliance Worksheet – Fuel Oil

AECI – Holden Power Plant

This sheet covers the period of \_\_\_\_\_.  
 (month/year)

This sheet is for Turbine Number \_\_\_\_\_

**Copy this sheet as needed.**

Hours that a Turbine is Burning Fuel Oil = Unit Oil Hours	
Total Unit Oil Hours for this Month (Note 1)	
12-Month Total Unit Oil Hours From Previous Month's Worksheet (Note 2)	
Monthly Total Unit Oil Hours From Previous Year's Worksheet (Note 3)	
Current 12-Month Total Unit Oil Hours (Note 4)	

Note 1: Total number of hours that this installation was burning fuel oil for this month (unit oil hours).

Note 2: Running 12-month total of unit oil hours from previous month's worksheet.

Note 3: Unit oil hours reported for this month in the last calendar year.

Note 4: Amount reported in Note 2 minus amount reported in Note 3 plus amount reported in Note 1. Less than 500 hours indicates compliance.

**Attachment D**  
**Sulfur Dioxide (SO<sub>x</sub>) Compliance Worksheet**

AECI – Holden Power Plant

This sheet covers the period of \_\_\_\_\_.  
 (month/year)

**Copy this sheet as needed.**

<b>Column A</b>	<b>Column B</b>	<b>Column C</b>	<b>Column D</b>
<b>Fuel Source</b>	<b>Amount of Fuel Burned (MMCF/MGal) (Note 1)</b>	<b>SO<sub>x</sub> Emission Factor (lb/MMCF) or (lb/MGal) (Note 2)</b>	<b>SO<sub>x</sub> Emissions (tons) (Note 3)</b>
Natural Gas			
Fuel Oil			
12-Month SO <sub>x</sub> Emissions Total From Previous Month's Worksheet (tons) (Note 4)			
Monthly SO <sub>x</sub> Emissions Total From Previous Year's Worksheet (tons) (Note 5)			
Current 12-Month Total SO <sub>x</sub> Emissions (tons) (Note 6)			

Note 1: Total amount of natural gas and fuel oil burned at the entire installation during this month.

Note 2: SO<sub>x</sub> emission factor will be determined from fuel sulfur analysis..

Note 3: Column D = (Column B) x (Column C) ÷ (2000 lb/ton)

Note 4: Running 12-month total of SO<sub>x</sub> emissions.

Note 5: SO<sub>x</sub> Emissions reported for this month in the last calendar year.

Note 6: Amount/s reported in Note 3 plus amount reported in Note 4 minus amount reported in Note 5. Less than 60 tons indicates compliance.

**Attachment E**  
 Formaldehyde Compliance Worksheet

AECI – Holden Power Plant  
 Permit Number OP2010-029

This sheet covers the period of \_\_\_\_\_.  
 (month/year)

**Copy this sheet as needed.**

<b>Column A</b>	<b>Column B</b>	<b>Column C</b>	<b>Column D</b>
<b>Fuel Source</b>	<b>Amount of Natural Gas Burned (MMCF) (Note 1)</b>	<b>Formaldehyde Emission Factor (lb/MMCF) (Note 2)</b>	<b>Natural Gas Formaldehyde Emissions (tons) (Note 3)</b>
Natural Gas			
12-Month Formaldehyde Emissions Total From Previous Month's Worksheet (tons) (Note 4)			
Monthly Formaldehyde Emissions Total From Previous Year's Worksheet (tons) (Note 5)			
Current 12-Month Total Formaldehyde Emissions (tons) (Note 6)			

Note 1: Total amount of natural gas burned at the entire installation during this month.

Note 2: Formaldehyde emission factor will be determined from stack test data.

Note 3: Column D = (Column B) x (Column C) ÷ (2000 lb/ton)

Note 4: Running 12-month total of formaldehyde emissions.

Note 5: Formaldehyde Emissions reported for this month in the last calendar year.

Note 6: Amount reported in Note 3 plus amount reported in Note 4 minus amount reported in Note 5. Less than 10 tons indicates compliance.

**Attachment F**  
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, Inc. – Holden Power Plant  
**ORIS Code:** 7848  
**Unit ID:** EU01, EU02 and EU03

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.

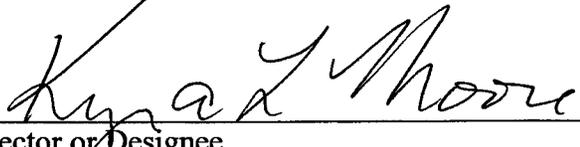
The number of allowances actually held by an affected source in a unit account may differ from the number allocated by the United States Environmental Protection Agency. Pursuant to 40 CFR 72.84, *Automatic permit amendment*, this does not necessitate a revision to any unit SO<sub>2</sub> allowance allocations identified in this permit.

These units are not coal fired and therefore are not subject to the requirements of 40 CFR Part 76, Nitrogen Oxides Emission Reduction Program.

This Acid Rain permit is being issued in conjunction with this operating permit and is effective for the same period of time as the operating permit. The permittee shall submit an application to renew this Acid Rain permit in conjunction with the operating permit renewal application.

JAN 11 2016

Date

  
\_\_\_\_\_  
Director or Designee,  
Department of Natural Resources





Holden Power Plant  
Facility (Source) Name (from STEP 1)

Acid Rain - Page 2

**STEP 3**

Read the standard requirements.

**Permit Requirements**

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

**Monitoring Requirements**

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the 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).

Holden Power Plant  
Facility (Source) Name (from STEP 1)

Acid Rain - 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 submission of a new certificate of representation changing the designated representative;

Holden Power Plant  
Facility (Source) Name (from STEP 1)

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**Recordkeeping and Reporting Requirements, Cont'd.**

**STEP 3, 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:

- (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

Holden Power Plant  
Facility (Source) Name (from STEP 1)

Acid Rain - Page 5

**Effect on Other Authorities, Cont'd.**

**STEP 3, Cont'd.**

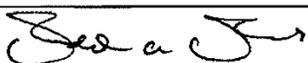
to applicable National Ambient Air Quality Standards or State Implementation Plans;

- (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;
- (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**

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

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Todd A. Tolbert ADR	
Signature 	Date 6/20/11

## STATEMENT OF BASIS

### Permit Reference Documents

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

- 1) Part 70 Operating Permit Application, received September 8, 2014;
- 2) 2013 Emissions Inventory Questionnaire, received April 29, 2014; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition;
- 4) WebFIRE;
- 5) Construction Permit 022001-014, Issued February 26, 2001;
- 6) Amendment to Construction Permit 022001-014(A), Issued September 18, 2003;
- 7) Construction Permit 012002-006, Issued January 9, 2002; and
- 8) Acid Rain Permit OP2011-041, Issued August 30, 2011

### Applicable Requirements Included in the Operating Permit but Not in the Application or Previous Operating Permits

In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

None.

### 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.

#### 10 CSR 10-6.405, *Restriction of Particulate Matter Emissions from Fuel Burning Equipment Used for Indirect Heating*

This rule does not apply to the Fuel Oil Heater (EU05) and the 15 MMBtu/hr Gas Heater (EP06) because they are fueled by either natural gas or fuel oil with a sulfur content less than 1.2% sulfur and therefore are exempt according to 10 CSR 10-6.405(1)(E).

10 CSR 10-6.220 *Restriction of Emission of Visible Air Contaminants* is applicable to EU05 Fuel Oil Heater (EP05) but the heater has an estimated PTE of 0.25 lbs PM/hr and is assumed to always be in compliance with the 20% standard. The regulation is also applicable to EP06 Fuel Gas Heater which has an estimated PTE of 0.11 lbs PM/hr and is also assumed to always be in compliance with the 20% standard.

10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*

This rule is not applicable to EU01, EU02, or EU03, which are exempt per 10-6.260(1)(A)(1). This rule is not applicable to EP06, which is exempt per 10-6.260(1)(A)(2).

10 CSR 10-6.360, *Control of NO<sub>x</sub> Emissions From Electric Generating Units and Non-Electric Generating Boilers*

This rule is not applicable because the installation is located in Johnson county and exempt per 10-6.360(1)(A).

10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Processes*

This rule is not applicable to this installation because the PTE of each of the applicable emission units is below on

10 CSR 10-6.362, *Clean Air Interstate Rule Annual NO<sub>x</sub> Trading Program*

10 CSR 10-6.364, *Clean Air Interstate Rule Seasonal NO<sub>x</sub> Trading Program*

10 CSR 10-6.366, *Clean Air Interstate Rule SO<sub>2</sub> Trading Program*

The Cross-State Air Pollution Rule (CSAPR) took effect January 1, 2015, replacing the CAIR regulations; therefore they are no longer applicable to this installation. Once the Environmental Protection Agency develops a permit application for the implementation of CSAPR, a CSAPR permit will be issued to the facility which will be incorporated into the Part 70 Operating Permit upon renewal.

### **Construction Permit History**

Construction Permit 012002-006, Issued December 10, 2001

This permit authorized the addition of a 2.44 MMBtu/hr fuel oil heater (EP-05) and a 15 MMBtu/hr fuel gas heater (EP-06).

Construction Permit 022001-014, Issued February 13, 2001

Construction Permit 022001-014A, Issued September 18, 2003

This permit authorized the installation of the peaking power generating station consisting of three 121-Megawatt simple-cycle dual fuel combustion turbines (EU01, EU02 and EU03) and a 1.5 million gallon storage tank. All special conditions were included in the operating permit except for compliance testing requirements (Special Conditions 15 through 18) which have already been completed by the permittee and approved by the Air Program.

This permit was amended to remove the requirement for continuous emissions monitoring of CO found in Special Conditions 19 and 20 of the original permit.

### **New Source Performance Standards (NSPS) Applicability**

40 CFR Part 60, Subpart Kb - *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984*

The 1.5 Million Gallon Number 2 Fuel Oil Storage Tank (EP04) is not applicable to subpart Kb requirements per §60.110b(b). The maximum true vapor pressure of number 2 fuel oil was calculated using Table 7.1-2 of AP-42 and NOAA temperature data as 0.11 kPa.

40 CFR Part 60, Subpart GG - *Standards of Performance for Stationary Gas Turbines*.  
The provisions of this subpart apply to EU01, EU02, and EU03.

Emission Limit Calculation per §60.332(a)(1):

Natural Gas Combustion:

$$\text{STD} = 0.0075 * (14.4/Y) + F$$

$$Y = 1406 \text{ MMBtu/hr} * 10^6 \text{ Btu/MMBtu} * 1055.1 \text{ J/Btu} * 1 \text{ KJ/1000 J} \div 1.21 \times 10^8 \text{ Watts}$$
$$= 12.26 \text{ KJ/watt-hr}$$

$$\text{STD} = 0.0075 * (14.4/12.26)$$

$$= \boxed{0.0088\% \text{ or } 88 \text{ ppmv}}$$

Fuel Oil Combustion:

$$\text{STD} = 0.0075 * (14.4/Y) + F$$

$$Y = 1288 \text{ MMBtu/hr} * 10^6 \text{ Btu/MMBtu} * 1055.1 \text{ J/Btu} * 1 \text{ KJ/1000 J} \div 1.21 \times 10^8 \text{ Watts}$$
$$= 11.23 \text{ KJ/watt-hr}$$

$$\text{STD} = 0.0075 * (14.4/11.23)$$

$$= \boxed{0.0096\% \text{ or } 96 \text{ ppmv}}$$

Heat input and combustion turbine output @ ISO data for the above calculations were taken from Holden Power Plant's Operating Permit Application Emission Unit Information Section (FORM OP-D03) received October September 8, 2014, by the Missouri Department of Natural Resources Air Pollution Control Program.

40 CFR Part 60, Subpart IIII - *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* is not applicable to EU07 because the fire pump was constructed prior to July 11, 2005.

40 CFR Part 60, Subpart KKKK - *Standards of Performance for Stationary Combustion Turbines* is not applicable because the turbines were constructed prior to February 28, 2005.

**Maximum Achievable Control Technology (MACT) Applicability**

40 CFR Part 63, Subpart YYYY - *National Emission Standard for Hazardous Air Pollutants for Stationary Combustion Turbines* is not applicable to HAP area sources.

40 CFR Part 63, Subpart ZZZZ – *National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* is applicable to EU07 and is included in the operating permit under Permit Condition 011.

40 CFR Part 63 Subpart DDDDD – *National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters* is not applicable to facility because it is not a major source of HAP emissions.

40 CFR Part 63 Subpart JJJJJ – *National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boiler Area Sources* is not applicable to Fuel Gas Heater (EU05) and EU06 because they do not meet the definition of industrial, commercial or institutional boilers as defined in 40 CFR 63.11237.

### **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.

40 CFR Part 64 is not applicable because none of the pollutant-specific emission units uses a control device to achieve compliance with a relevant standard.

### **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 CO<sub>2</sub> emissions in their Missouri Emissions Inventory Questionnaire; therefore, the installation's CO<sub>2</sub> emissions were not included within this permit. The applicant is required to report the data directly

to EPA. The public may obtain CO<sub>2</sub> emissions data for this installation by visiting <http://epa.gov/ghgreporting/ghgdata/reportingdatasets.html>.

### Updated Potential to Emit for the Installation

Pollutant	Potential to Emit (tons/yr) <sup>1</sup>
CO	461.5
HAP	<10/25
NO <sub>x</sub>	651.7
PM <sub>10</sub>	122.6
PM <sub>2.5</sub>	122.6
SO <sub>x</sub>	96.5
VOC	54.4

Potential to Emit was taken from the previously issued Construction Permits (Nos. 012002-006 and 022001-014) and assuming worst-case (for PTE) operating scenario.

### Other Regulatory Determinations

#### 10 CSR 10-6.260, Restriction of Emission of Sulfur Compounds

EU05 – 3.0 MMBtu/hr fuel oil heater is limited to 8.0 lb/MMBtu sulfur dioxide. To ensure compliance with this limit the unit is limited to burning low sulfur fuel (fuel oil with a sulfur content less than 0.05%). The following calculation demonstrates that this unit will be in compliance with the emission limit:

Max Heat Input rate = 3.0 MMBtu/hr

MHDR = 0.22 Mgal/hr

EF (from AP-42, SCC 10100501) = 142 x S lb/Mgal, where S is the sulfur content of the fuel = 0.05

Maximum sulfur dioxide emissions = 0.22 x 142(.05) / 3.0 MMBtu/hr = 0.52 lb/MMBtu which is less than 8.0 lb/MMBtu.

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

## Response to Public Comments

The draft Part 70 operating permit renewal for Associate Electric Cooperative, Inc. – Holden Power Plant was placed on public notice March 6, 2015 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>. Comments were received from Blake Pinkerton of AECEI via email on March 23 and from Mark Smith of EPA on March 27, 2015. The comments are addressed in the order they were received.

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**Comment #1:** On page 5 we no longer have or use the 55 gallon drums of Nalco Water Treatment Chemical (2) (IA07) and this can be removed.

**Response to Comment:** This emission unit has been removed from the operating permit.

**Comment #2:** Permit Condition 001 incorporates applicable operational time constraint requirements for the three simple-cycle combustion turbines established in Construction Permit #022001-014A, issued September 18, 2003.

First operations limit 1 discusses fuel used in proposed simple-cycle turbine generators. These turbine generators are operational and are no longer proposed and EPA recommends MDNR remove the word "proposed."

Second, this operational limitation, which references Construction Permit #022001-014A Condition 1, does not include all of the permittee requirements as specified in Condition 1 of the construction permit. The condition requires the permittee to "sample fuel for percent sulfur by weight on a monthly basis." However, this requirement is not included in the draft operating permit. EPA recommends MDNR address all of the applicable requirements of Construction Permit #022001-014A.

Third, operational limitations 2, 3 and 4 establish limits based on "consecutive 12-month rolling average." It is incorrect to say "12-month rolling average," as there is no averaging as Attachments A, B and C clearly show. These three attachments indicate the compliance demonstration is derived by summing the monthly emissions over the previous 12 months. Correct terminology includes: "12-month rolling sum," "12-month rolling total," or "emissions shall not exceed the limit in any consecutive 12-month period." EPA recommends MDNR modify the operational limitations in Permit Condition 001 to reflect the correct terminology.

**Response to Comment:** The word "proposed" has been removed from the description on the turbine generators as requested. The requirement to perform monthly fuel sampling for sulfur content has been added to the operating permit. And the word "average" has been corrected to "total" in the term "12-month rolling total" throughout Permit Condition 001.

**Comment #3:** Permit Condition 002 incorporates nitrogen oxide (NOx) emission limitation from the three simple-cycle combustion turbine generators as established in Construction Permit #022001-014A. There is one limit for the combustion of natural gas and a different limit for the combustion of low-sulfur fuel oil. Permit Condition 002 requires AECEI-Holden to install, calibrate, maintain and operate a continuous emission monitoring system (CEMS) for measuring NOx. However there is no requirement to monitor the times when the combustion turbines are burning natural gas and times when the combustion turbines are burning low-sulfur fuel oil. Therefore, there does not appear to be any practical

enforceability of the continuous NO<sub>x</sub> measurement. EPA recommends MDNR use their periodic monitoring authority in 10 CSR 10-6.065(6)(C)1.C(I)(b) and work with AECI-Holden to establish and include a fuel use monitoring to coincide with the continuous NO<sub>x</sub> monitoring in Permit Condition 002.

**Response to Comment:** Permit Condition 002 includes the following statement which requires the permittee to monitor and record NO<sub>x</sub> emissions from the CEMS:

“The permittee shall install, calibrate, maintain, and operate continuous monitoring systems and record the output of the systems, for measuring NO<sub>x</sub> emissions discharged into the atmosphere.”

**Comment #4:** Permit Condition 003 incorporates applicable sulfur dioxide (SO<sub>x</sub>) emission limitations established in Construction Permit #022001-014A. The emission limitation establishes a SO<sub>x</sub> limit based on a “consecutive 12-month rolling average.” As pointed out in the previous comment, it is incorrect to say “12-month rolling average” as there is no averaging as Attachment D clearly shows. Attachment D indicates the compliance demonstration is derived by summing the monthly emissions over the previous 12-month. Correct terminology includes: “12-month rolling sum,” “12-month rolling total,” or “emissions shall not exceed the limit in any consecutive 12-month period. EPA recommends MDNR modify the operational limitation in Permit Condition 003 to reflect the correct terminology. Also, monitoring/recordkeeping requirement 1 requires the permittee to calculate SO<sub>2</sub> emissions from the three simple-cycle combustion turbines based on fuel sulfur analysis and fuel flow. However, Attachment D requires the permittee to calculate SO<sub>x</sub> emissions based on amount of fuel burned and a SO<sub>x</sub> emission factor determined from stack test data. EPA believes these are two different approaches to reach the same end point and only one is likely needed. EPA recommends MDNR work with AECI-Holden to settle on the one approach to be carried in the operating permit. AECI-Holden should submit a construction permit modification, once they have settled on their approach to calculating SO<sub>x</sub>, as this operating permit condition is taken directly from the construction permit. Finally, if the method chosen involves a calculation based on fuel sulfur analysis and fuel flow, EPA recommends MDNR included as example calculation within the permit condition.

**Response to Comment:** The word “average” has been changed to “total” in Emission Limitation No. 1 of Permit Condition 003. Attachment D, Note 2 has been changed to require that the permittee determine SO<sub>x</sub> emission factors from the fuel sulfur analysis required in Monitoring/Recordkeeping condition 1. A construction permit modification is not required to correct the Attachment.

**Comment #5:** The record keeping requirement in Permit Condition 004 and Permit Condition 005 is not practically enforceable and fails to include all applicable requirements in accordance with 10 CSR 10-6.065(6)(C)1.

First, practical enforceability answers the “who,” “what,” “where,” “when,” and “how,” and “how often.” EPA recommends MDNR modify the record keeping requirement in both Permit Condition 004 and Permit Condition 005 to assure they are practically enforceable.

Second, Construction Permit #022001-014 is not incorporated by reference and is not attached to the operating permit and therefore is not an official part of the operating permit. If Construction Permit #022001-014 contains performance test record keeping requirements, those requirements must be incorporated into the operating permit. Therefore, EPA recommends MDNR modify the recordkeeping requirement in Permit Condition 004 and Permit Condition 005 to be practically enforceable and include all applicable requirements.

**Response to Comment:** Construction Permit 022001-014 requires that the permittee perform compliance testing to verify that the emission limitations set in the special conditions are not exceeded. The permittee is required to maintain records of the testing by both the construction permit and the operating permit. Permit Condition 004 and 005 include the requirements for the testing and recordkeeping for CO and PM10 emissions. Permit Condition 006 includes the requirements for formaldehyde which are more extensive. Tests were required to be performed within 60-days after achieving maximum production rate but not later than 180-day after initial startup. Testing was required to be conducted in accordance with the Stack Test Procedures outline in 40 CFR Part 60 (required by Special Condition 15.D). The APCP required 30-day prior notice of testing so that an observer could be present and a completed proposed test plan prior to the conducting of the testing. Because the testing has been completed these requirements were not included in the operating permit. The construction permit does not need to be attached to the operating permit or incorporated by reference in order for the operating permit to require that performance test results be maintained by the permittee.

**Comment #6:** Permit Condition 007 incorporates applicable nitrogen oxide (NO<sub>x</sub>) requirements from 40 CFR Part 60 Subpart GG: Standards of Performance for Stationary Gas Turbines. The emission limitation, included in the draft permit, describes how AECl-Holden compliance with the NO<sub>x</sub> BACT limits established in Construction Permit 022001-014A (Permit Condition 002) assures compliance with NSPS-GG. EPA believes this is a Statement of Basis and not a limitation in a permit condition and should be in the operating permit Statement of Basis. Additionally, the monitoring requirement in Permit Condition 007 includes an option for the permittee to use a continuous emission monitoring system (CEMS) to monitor compliance with the NO<sub>x</sub> limit. The monitoring requirement, already included in operating Permit Condition 002 to satisfy the BACT, requires AECl-Holden to install, calibrate, operate and maintain a NO<sub>x</sub> CEMS. Therefore, as with the emission limitation in Permit Condition 007, a discussion of BACT monitoring will satisfy monitoring for NSPS-GG should be included in the Statement of Basis. EPA recommends MDNR consider these modification to Permit Condition 007.

**Response to Comment:** The Note included under Emission Limitations for Permit Condition 007 which explains that AECl-Holden is in compliance with the emission limitations for NSPS-GG due to the more stringent limits set in Construction Permit 022001-014A (BACT Limits) are included for convenience and clarity for the permittee. Whether this short explanation is placed in the Statement of Basis or as a Note to this Permit Condition 007 is a matter of style and does not affect the function or legality of the operating permit.

**Comment #7:** Permit Condition 0011 is included in the draft operating permit to incorporate applicable requirements from 40 CFR Part 63 Subpart ZZZZ; National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT). The draft operating permit lists an emergency diesel fire pump as the affected emission unit being identified as a 053 MMBtu/hr unit. However, RICE MACT applicable requirements are given according to engine horsepower. To facilitate the review of the permit conditions being applicable to the listed engine, EPA recommends MDNR provide the horsepower rating of the engine. Also, AECl-Holden is considered an area hazardous air pollutant source. To date, MDNR has not accepted and taken over the compliance responsibilities of the area source RICE MACT and as such relies on the EPA to monitor and manage area source compliance. However, the compliance notification and reporting included in Permit Condition 0011 requires the permittee to submit reports to MDNR. EPA contend that if the EPA is responsible for compliance, then the EPA should be the primary recipient of the compliance notifications and reports; with MDNR receiving duplicate copies. Therefore, EPA recommends MDNR

add specific clarifying language into the permit condition to show EPA as the primary compliance information recipient related to HAPs and MDNR as secondary.

**Response to Comment:** The horsepower of the engine has been added to the emission unit description. According to the permittee this engine is 118.6 hp. EPA has been added as the recipient of compliance information associated with Permit Condition 0011.

**Comment #8:** The language regarding the written notification requirement for Off-Permit Changes in section V used in operating permits has recently been modified to more closely match the wording in 10 CSR 10-6.065(6)(C)5. Therefore, EPA recommends MDNR use the newer Off-Permit Change wording in the AECI-Holden operating permit.

**Response to Comment:** The permit has been updated to include the new language.