

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

PART 70 PERMIT TO OPERATE

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

Operating Permit Number: OP2017-012
Expiration Date: JAN 31 2022
Installation ID: 007-0053
Project Number: 2015-10-042

Installation Name and Address

Ameren Missouri Audrain Energy Center
40897 Highway P
Vandalia, MO 63382
Audrain County

Parent Company's Name and Address

Ameren Corporation
1901 Chouteau Avenue
St. Louis MO, 63103

Installation Description:

Ameren Missouri Audrain Energy Center consists of eight simple-cycle, 80 Megawatt nominal combustion turbine generators for a total nominal plant capacity of 640 MW. The turbines are used as peaking units during periods of high demand. The turbines are equipped to burn only natural gas which is supplied by a nearby natural gas pipeline. There is also a 140 kW emergency diesel fire pump on site. This facility is a minor source of all criteria pollutants due to limits taken on hours of operation. A Part 70 operating permit is required because the facility is subject to the Acid Rain Program.

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

Director of Designee
Department of Natural Resources

JAN 31 2017

Effective Date

Table of Contents

I. INSTALLATION EQUIPMENT LISTING	4
EMISSION UNITS WITH LIMITATIONS.....	4
EMISSION UNITS WITHOUT SPECIFIC LIMITATIONS.....	4
II. PLANT WIDE EMISSION LIMITATIONS.....	5
PERMIT CONDITION PW1	5
10 CSR 10-6.060 Construction Permits Required.....	5
Construction Permit 052000-015, issued May 16, 2000	5
EP-1 THROUGH EP-8 COMBUSTION TURBINES	5
III. EMISSION UNIT SPECIFIC EMISSION LIMITATIONS	6
PERMIT CONDITION 1	6
10 CSR 10-6.060 Construction Permits Required.....	6
Construction Permit 052000-015, issued May 16, 2000	6
BACT Requirement for NO _x	6
EP-1 THROUGH EP-8 COMBUSTION TURBINES	6
PERMIT CONDITION 2.....	7
10 CSR 10-6.060 Construction Permits Required.....	7
Construction Permit 052000-015, issued May 16, 2000	7
BACT Requirement for CO.....	7
EP-1 THROUGH EP-8 COMBUSTION TURBINES	7
PERMIT CONDITION 3.....	8
10 CSR 10-6.060 Construction Permits Required.....	8
Construction Permit 052000-015, issued May 16, 2000	8
BACT Requirement for PM ₁₀	8
EP-1 THROUGH EP-8 COMBUSTION TURBINES	8
PERMIT CONDITION 4.....	8
10 CSR 10-6.060 Construction Permits Required.....	8
Construction Permit 052000-015, issued May 16, 2000	8
EP-1 THROUGH EP-8 COMBUSTION TURBINES	8
PERMIT CONDITION 5.....	9
10 CSR 10-6.070 New Source Performance Standards	9
40 CFR Part 60 Subpart GG, Standards of Performance for Combustion Turbines	9
EP-1 THROUGH EP-8 COMBUSTION TURBINES	9
PERMIT CONDITION 6.....	11
10 CSR 10-6.270 Acid Rain Permit Required.....	11
EP-1 THROUGH EP-8 COMBUSTION TURBINES	11
PERMIT CONDITION 7.....	11
10 CSR 10-6.362 Clean Air Interstate Rule Annual NO _x Trading Program	11
10 CSR 10-6.364 Clean Air Interstate Rule Seasonal NO _x Trading Program	11
10 CSR 10-6.366 Clean Air Interstate Rule SO ₂ Trading Program.....	11
EP-1 THROUGH EP-8 COMBUSTION TURBINES	11
PERMIT CONDITION 8.....	12
40 CFR Parts 70 and 97 Cross State Air Pollution Rule	12
10 CSR 10-6.372 Cross-State Air Pollution Rule Annual NO _x Trading Allowance Allocations.....	12
10 CSR 10-6.374 Cross-State Air Pollution Rule Ozone Season NO _x Trading Allowance Allocations....	12
10 CSR 10-6.376 Cross-State Air Pollution Rule Annual SO ₂ Trading Allowance Allocations	12
EP-1 THROUGH EP-8 COMBUSTION TURBINES	12

PERMIT CONDITION 9.....	21
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds.....	21
EP-9 EMERGENCY FIRE PUMP.....	21
PERMIT CONDITION 10.....	21
10 CSR 10-6.261 Control of Sulfur Dioxide Emissions.....	21
EP-9 EMERGENCY FIRE PUMP.....	21
PERMIT CONDITION 11.....	23
10 CSR 10-6.075 Maximum Achievable Control Technology Regulation.....	23
40 CFR Part 63 Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.....	23
EP-9 EMERGENCY FIRE PUMP.....	23
IV. CORE PERMIT REQUIREMENTS	26
V. GENERAL PERMIT REQUIREMENTS.....	31
VI. ATTACHMENTS	37
ATTACHMENT A.....	38
Installation Operational Schedule.....	38
ATTACHMENT B.....	39
Generator Operational Schedule.....	39
ATTACHMENT C.....	40
Acid Rain Permit.....	40
ATTACHMENT D.....	45
CAIR Permit.....	45

I. Installation Equipment Listing

EMISSION UNITS WITH LIMITATIONS

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

<u>Emission Unit #</u>	<u>Description of Emission Unit</u>
EP-1	Combustion Turbine 1
EP-2	Combustion Turbine 2
EP-3	Combustion Turbine 3
EP-4	Combustion Turbine 4
EP-5	Combustion Turbine 5
EP-6	Combustion Turbine 6
EP-7	Combustion Turbine 7
EP-8	Combustion Turbine 8
EP-9	Emergency Fire Pump Engine

EMISSION UNITS WITHOUT SPECIFIC LIMITATIONS

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

<u>Description of Emission Source</u>	
TK1-TK8	Eight 2,600 gallon lubrication oil tanks
PW-1	Parts Washer

II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued. The plant wide conditions apply to all emission units at this installation. All emission units are listed in Section I under Emission Units with Limitations and Emission Units without Limitations.

<p>PERMIT CONDITION PW1 10 CSR 10-6.060 Construction Permits Required Construction Permit 052000-015, issued May 16, 2000</p>
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EP-1 through EP-8 Combustion Turbines	
Emission Unit	Description
EP-1 through EP-8	Combustion Turbines 1 through 8 with Dry Low NO _x Burners: 1159 MMBtu/hr each; Maximum Operational Power Output: 80 MW each; Fuel Type: Natural Gas; Constructed 2001; Manufacturer/Model No.: General Electric/7EA

Emission Limitation:

The permittee shall limit emissions of formaldehyde to a rate less than 10 tons in any consecutive 12-month period. [Special Condition 11]

Monitoring/Record Keeping:

Maintaining records of hourly usage required by Permit Condition 4 is sufficient to demonstrate compliance with the formaldehyde emission limit.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of each month if records indicate that the source exceeded the hourly usage limitations in Permit Condition 4.
- 2) The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

III. Emission Unit Specific Emission Limitations

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

<p>PERMIT CONDITION 1 10 CSR 10-6.060 Construction Permits Required Construction Permit 052000-015, issued May 16, 2000 BACT Requirement for NO_x</p>

EP-1 through EP-8 Combustion Turbines	
Emission Unit	Description
EP-1 through EP-8	Combustion Turbines 1 through 8 with Dry Low NO _x Burners: 1159 MMBtu/hr each; Maximum Operational Power Output: 80 MW each; Fuel Type: Natural Gas; Constructed 2001; Manufacturer/Model No.: General Electric/7EA

Emission Limitations:

Nitrogen Oxides (NO_x)

- 1) Except during periods of start-up and shutdown (i.e. at loads greater than 60%), the permittee shall limit NO_x emissions from each of the turbine generators (EP-1 through EP-8) to 12 parts per million by volume (ppmvd) corrected to 15% oxygen on a dry basis and expressed as a one-hour average. [Special Condition 5.A]
- 2) Except during periods of start-up and shutdown (i.e. at loads greater than 60%), the permittee shall limit NO_x emissions from each of the turbine generators (EP-1 through EP-8) to 9 parts per million by volume (ppmvd) corrected to 15% oxygen on a dry basis and expressed as a 12-month rolling average. [Special Condition 5.B]

Monitoring/Recordkeeping:

- 1) The permittee shall install, calibrate, maintain, and operate continuous monitoring systems, and record output of the systems, for measuring NO_x emission rate in accordance with the requirements of 40 CFR 75.12. These systems shall be placed in an appropriate location of each turbine’s flue gas exhaust such that accurate readings are possible.
- 2) The permittee shall install, calibrate, maintain, and operate continuous monitoring systems, and record output of the systems, for measuring the oxygen (O₂) content of the flue gasses at each location where NO_x emissions are monitored. The O₂ content of the flue gasses may be determined by use of either an O₂ CEMS or a CO₂ CEMS. If Audrain Energy Center elects to use a CO₂ CEMS, the conversion process in EPA Method 20 must be used to correct the NO_x concentrations to 15 percent.
- 3) Notwithstanding paragraphs (1) and (2) above, the permittee may elect to utilize the procedures for estimating NO_x emission rate in Appendix E to Part 75 in accordance with 40 CFR 75.12(d) at any affected unit which meets the definition of a gas-fired peaking unit in 40 CFR 72.2. [See Attachment E for detailed requirements for utilizing the optional NO_x emissions estimation protocol.]
- 4) If a unit that elects to utilize the procedures for estimating the NO_x emission rate in Appendix E of Part 75 should, in the years following certification of an excepted monitoring system, exceed a capacity factor of 20 percent in any calendar year or exceed a capacity factor of 10.0 percent

averaged over three years, the owner or operator shall install, certify, and operate a NO_x-diluent CEMS no later than December 31 of the following calendar year.(40 CFR 75.12(d)(2)).

- 5) If a unit elects to utilize procedures for estimating the NO_x emission rate in Appendix E of Part 75, the permittee shall verify that the unit continues to meet the NO_x BACT emission limitation by repeating the performance test required by Construction Permit 052000-015. This performance test may be performed at the same time that the testing for Part 75 Appendix E.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of each month if records indicate that the source exceeded the NO_x emission limitations.
- 2) The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION 2

10 CSR 10-6.060 Construction Permits Required
Construction Permit 052000-015, issued May 16, 2000
BACT Requirement for CO

EP-1 through EP-8 Combustion Turbines

Emission Unit	Description
EP-1 through EP-8	Combustion Turbines 1 through 8 with Dry Low NO _x Burners: 1159 MMBtu/hr each; Maximum Operational Power Output: 80 MW each; Fuel Type: Natural Gas; Constructed 2001; Manufacturer/Model No.: General Electric/7EA

Emission Limitation:

Except during periods of start-up and shutdown (i.e. at loads greater than 60%), the permittee shall limit CO emissions from each of the turbine generators (EP-1 through EP-8) to 25 parts per million by volume (ppmvd) corrected to 15% oxygen on a dry basis and expressed as a one-hour average. [Special Condition 6]

Monitoring/Record Keeping:

Maintain records of the performance test required by Construction Permit #05200-015.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION 3
 10 CSR 10-6.060 Construction Permits Required
 Construction Permit 052000-015, issued May 16, 2000
 BACT Requirement for PM₁₀

EP-1 through EP-8 Combustion Turbines	
Emission Unit	Description
EP-1 through EP-8	Combustion Turbines 1 through 8 with Dry Low NO _x Burners: 1159 MMBtu/hr each; Maximum Operational Power Output: 80 MW each; Fuel Type: Natural Gas; Constructed 2001; Manufacturer/Model No.: General Electric/7EA

Emission Limitation:

The permittee shall limit PM₁₀ emissions from each of the turbine generators (EP-1 through EP-8) to 0.016 pounds per million Btu (lb/MMBtu) of heat input. [Special Condition 7]

Monitoring/Record Keeping:

Maintain records of the performance test required by Construction Permit #05200-015.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION 4
 10 CSR 10-6.060 Construction Permits Required
 Construction Permit 052000-015, issued May 16, 2000

EP-1 through EP-8 Combustion Turbines	
Emission Unit	Description
EP-1 through EP-8	Combustion Turbines 1 through 8 with Dry Low NO _x Burners: 1159 MMBtu/hr each; Maximum Operational Power Output: 80 MW each; Fuel Type: Natural Gas; Constructed 2001; Manufacturer/Model No.: General Electric/7EA

Operational Limitations:

- 1) The permittee shall burn only natural gas at this installation. [Special Condition 1]
- 2) Except during periods of start-up and shutdown (i.e. at loads greater than 60%), the permittee shall limit the total hours of operation of this installation to less than 4,000 hours in every consecutive 12-month rolling average. [Special Condition 2]
- 3) Except during periods of start-up and shutdown (i.e. at loads greater than 60%), the permittee shall limit the total hours of operation of each of the turbine generators (EP-1 through EP-8) to less than 2,500 hours total per turbine in every consecutive 12-month rolling average. [Special Condition 3]
- 4) The permittee shall not operate any turbine at loads less than sixty (60) percent unless the turbine is in startup or shutdown mode. For the purposes of this permit, startup and shutdown modes are defined as those periods of time that a turbine is operating less than 60 percent load. [Special Condition 32]

Monitoring/Recordkeeping:

- 1) The permittee shall keep monthly records that are adequate to determine compliance with Operational Limitations 2 and 3 (total installation and individual turbine hours of operation). Attachments A and B, Installation Operational Schedule and Generators Operational Schedule, or an equivalent form is suitable for this purpose. [Special Condition 13 and 14]
- 2) The permittee shall maintain records during periods of start-up and shutdown that include the amount of time required for each cycle and time that the turbines are operated at less than 60 percent load. Total time required for startup and shutdown times for each turbine shall not exceed one hour per operational period. Operational period is defined as the combined time of equipment startup, operation and shut down for a turbine. [Special Condition 33]
- 3) 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.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Compliance/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 operational limitation 2 (4,000 hours of operation) and/or operational limitation 3 (2,500 hours operation per turbine). [Special Condition 28]
- 2) The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION 5
 10 CSR 10-6.070 New Source Performance Standards
 40 CFR Part 60 Subpart GG, Standards of Performance for Combustion Turbines

EP-1 through EP-8 Combustion Turbines	
Emission Unit	Description
EP-1 through EP-8	Combustion Turbines 1 through 8 with Dry Low NO _x Burners: 1159 MMBtu/hr each; Maximum Operational Power Output: 80 MW each; Fuel Type: Natural Gas; Constructed 2001; Manufacturer/Model No.: General Electric/7EA

Emission Limitation:

- 1) *Nitrogen Oxides:*
 The combustion turbines (EU0010 – EU0080) are subject to the requirements of §60.332(a)(1) of 40 CFR Part 60 Subpart GG. The NO_x emission standard of Subpart GG for these turbines is 94.7 ppmv at 15 percent O₂ dry basis on a four-hour rolling average as determined by §60.332(a)(1)
- 2) *Sulfur Dioxides:*
 The permittee shall not burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw).

Monitoring:

Nitrogen Oxides:

- 1) The permittee shall install, calibrate, maintain, and operate continuous monitoring systems, and record output of the systems, for measuring NO_x emission rate in accordance with the requirements of 40 CFR 75.12. These systems shall be placed in an appropriate location of each turbine's flue gas exhaust such that accurate readings are possible.
- 2) The permittee shall install, calibrate, maintain, and operate continuous monitoring systems, and record output of the systems, for measuring the oxygen (O₂) content of the flue gasses at each location where NO_x emissions are monitored. The O₂ content of the flue gasses may be determined by use of either an O₂ CEMS or a CO₂ CEMS. If Audrain Energy Center elects to use a CO₂ CEMS, the conversion process in EPA Method 20 must be used to correct the NO_x concentrations to 15 percent.
- 3) Notwithstanding paragraphs (1) and (2) above, the permittee may elect to utilize the procedures for estimating NO_x emission rate in Appendix E to Part 75 in accordance with 40 CFR 75.12(d) at any affected unit which meets the definition of a gas-fired peaking unit in 40 CFR 72.2. [See Attachment E for detailed requirements for utilizing the optional NO_x emissions estimation protocol.]
- 4) If a unit that elects to utilize the procedures for estimating NO_x emission rate in Appendix E should, in the years following certification of an excepted monitoring system, exceed a capacity factor of 20 percent in any calendar year or exceed a capacity factor of 10.0 percent averaged over three years, the owner or operator shall install, certify, and operate a NO_x-diluent CEMS no later than December 31 of the following calendar year.(40 CFR 75.12(d)(2))

Sulfur Dioxides:

The permittee 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 40 CFR 60.331(u). [40 CFR 60.334(h)(3)]

Record Keeping:

1) *Nitrogen Oxides:*

Maintain records of NO_x concentration as determined in accordance with the requirements of 40 CFR 75.12, 40 CFR 75, Subpart F and/or 40 CFR 75 Appendix E (as applicable).

Sulfur Dioxides:

The permittee shall provide documentation that the natural gas burned in the turbines meets the definition of pipeline natural gas in accordance with Section 2.3.1.4 of Appendix D of 40 CFR Part 75.

2) *Both Nitrogen Oxides and Sulfur Dioxides:*

- a) The permittee shall maintain these records for the most recent five years. They must be maintained on-site for two years. They may be kept in either written or electronic form.
- b) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.

Reporting:

1) *Nitrogen Oxides*

The permittee shall submit a quarterly excess emissions report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, consistent with the format and schedule described in 40 CFR §60.7(d).

2) *Both Nitrogen Oxides and Sulfur Dioxides:*

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program's

Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

<p>PERMIT CONDITION 6 10 CSR 10-6.270 Acid Rain Permit Required</p>

EP-1 through EP-8 Combustion Turbines	
Emission Unit	Description
EP-1 through EP-8	Combustion Turbines 1 through 8 with Dry Low NO _x Burners: 1159 MMBtu/hr each; Maximum Operational Power Output: 80 MW each; Fuel Type: Natural Gas; Constructed 2001; Manufacturer/Model No.: General Electric/7EA

Emission Limitation:

The permittee shall obtain an Acid Rain Source Permit for the combustion turbine generators EP-1 through EP-8 pursuant to Title IV of the Clean Air Act.

An acid rain permit (ORIS Code 55234) is being issued to the permittee in conjunction with this Title V permit. Sulfur dioxide (SO₂) limitations are referenced in this Title IV: Phase II Acid Rain Permit for the installation. This permit is included with this operating permit as Attachment C.

Monitoring/Record Keeping:

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

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

<p>PERMIT CONDITION 7 10 CSR 10-6.362 Clean Air Interstate Rule Annual NO_x Trading Program 10 CSR 10-6.364 Clean Air Interstate Rule Seasonal NO_x Trading Program 10 CSR 10-6.366 Clean Air Interstate Rule SO₂ Trading Program</p>
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EP-1 through EP-8 Combustion Turbines	
Emission Unit	Description
EP-1 through EP-8	Combustion Turbines 1 through 8 with Dry Low NO _x Burners: 1159 MMBtu/hr each; Maximum Operational Power Output: 80 MW each; Fuel Type: Natural Gas; Constructed 2001; Manufacturer/Model No.: General Electric/7EA

The Clean Air Interstate Rule (CAIR) has recently been replaced by the Cross State Air Pollution Rule (CSAPR), however a CAIR Permit is being issued to this facility because the CAIR regulations have not been removed from the Missouri State Implementation Plan (SIP) at this time. Ameren Missouri Audrain Energy Center is not required to hold CAIR allowances and therefore no violation of CAIR is possible. Once the CAIR regulations are removed from the SIP and replaced with CSAPR, Permit Condition 7 will expire and the limitation thereof will no longer apply to the installation. No action on the part of the permittee is required to remove Permit Condition 7 from the operating permit.

Emission Limitation:

The permittee shall obtain a CAIR Source Permit for combustion turbine generators EP-1 through EP-8.

A CAIR Permit (Missouri Department of Natural Resources project, ORIS Code 55234) is being issued to the permittee in conjunction with this Title V permit. This permit is included with this operating permit as Attachment D.

Monitoring/Recordkeeping:

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

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION 8

40 CFR Parts 70 and 97 Cross State Air Pollution Rule

10 CSR 10-6.372 Cross-State Air Pollution Rule Annual NOx Trading Allowance Allocations

10 CSR 10-6.374 Cross-State Air Pollution Rule Ozone Season NOx Trading Allowance Allocations

10 CSR 10-6.376 Cross-State Air Pollution Rule Annual SO2 Trading Allowance Allocations

EP-1 through EP-8 Combustion Turbines

Emission Unit	Description
EP-1 through EP-8	Combustion Turbines 1 through 8 with Dry Low NOx Burners: 1159 MMBtu/hr each; Maximum Operational Power Output: 80 MW each; Fuel Type: Natural Gas; Constructed 2001; Manufacturer/Model No.: General Electric/7EA

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

Parameter	Continuous emission monitoring system or	Excepted monitoring system requirements for	Excepted monitoring system requirements	Low Mass Emissions excepted monitoring	EPA-approved alternative monitoring system

	systems (CEMS) requirements pursuant to 40 CFR part 75, subpart B (for SO ₂ monitoring) and 40 CFR part 75, subpart H (for NO _x monitoring)	gas- and oil-fired units pursuant to 40 CFR part 75, appendix D	for gas- and oil-fired peaking units pursuant to 40 CFR part 75, appendix E	(LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19	requirements pursuant to 40 CFR part 75, subpart E
SO ₂	N/A	EP1- EP8	N/A	N/A	N/A
NO _x	EP1-EP8	N/A	EP1-EP8	N/A	N/A
Heat Input	N/A	EP1-EP8	N/A	N/A	N/A

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

TR NO_x Annual Trading Program requirements (40 CFR 97.406)

(a) Designated representative requirements.

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

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

- (1) The permittee, and the designated representative, of each TR NO_x Annual source and each TR NO_x Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.430 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.431 (initial monitoring system certification and recertification procedures), 97.432 (monitoring system out-of-control periods), 97.433 (notifications concerning monitoring), 97.434 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.435 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- (2) The emissions data determined in accordance with 40 CFR 97.430 through 97.435 shall be used to calculate allocations of TR NO_x Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the TR NO_x Annual emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.430 through 97.435 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

(c) NO_x emissions requirements.

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

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

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

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- (ii). A TR NO_x Annual allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO_x Annual allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
 - (5) Allowance Management System requirements. Each TR NO_x Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart AAAAA.
 - (6) Limited authorization. A TR NO_x Annual allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:
 - (i). Such authorization shall only be used in accordance with the TR NO_x Annual Trading Program; and
 - (ii). Notwithstanding any other provision of 40 CFR part 97, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
 - (7) Property right. A TR NO_x Annual allowance does not constitute a property right.
- (d) Title V permit revision requirements.**
- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO_x Annual allowances in accordance with 40 CFR part 97, subpart AAAAA.
 - (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.430 through 97.435, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.406(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).
- (e) Additional recordkeeping and reporting requirements.**
- (1) Unless otherwise provided, the owners and operators of each TR NO_x Annual source and each TR NO_x Annual unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - (i). The certificate of representation under 40 CFR 97.416 for the designated representative for the source and each TR NO_x Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.416 changing the designated representative.
 - (ii). All emissions monitoring information, in accordance with 40 CFR part 97, subpart AAAAA.
 - (iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR NO_x Annual Trading Program.

- (2) The designated representative of a TR NO_x Annual source and each TR NO_x Annual unit at the source shall make all submissions required under the TR NO_x Annual Trading Program, except as provided in 40 CFR 97.418. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

(f) Liability.

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

(g) Effect on other authorities.

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

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

Designated representative requirements.

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

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

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

(b) NO_x emissions requirements.

- (1) TR NO_x Ozone Season emissions limitation.
 - (i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, TR NO_x Ozone Season allowances available for deduction for such control period under 40 CFR 97.524(a) in an

- amount not less than the tons of total NO_x emissions for such control period from all TR NO_x Ozone Season units at the source.
- (ii). If total NO_x emissions during a control period in a given year from the TR NO_x Ozone Season units at a TR NO_x Ozone Season source are in excess of the TR NO_x Ozone Season emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - (A). The permittee of the source and each TR NO_x Ozone Season unit at the source shall hold the TR NO_x Ozone Season allowances required for deduction under 40 CFR 97.524(d); and
 - (B). The permittee of the source and each TR NO_x Ozone Season unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBBB and the Clean Air Act.
- (2) TR NO_x Ozone Season assurance provisions.
- (i). If total NO_x emissions during a control period in a given year from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state exceed the state assurance level, then The permittee of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO_x Ozone Season allowances available for deduction for such control period under 40 CFR 97.525(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.525(b), of multiplying—
 - (A). The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and
 - (B). The amount by which total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state for such control period exceed the state assurance level.
 - (ii). The permittee shall hold the TR NO_x Ozone Season allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
 - (iii). Total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the State NO_x Ozone Season trading budget under 40 CFR 97.510(a) and the state's variability limit under 40 CFR 97.510(b).
 - (iv). It shall not be a violation of 40 CFR part 97, subpart BBBBBB or of the Clean Air Act if total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the TR NO_x Ozone Season

units at TR NO_x Ozone Season sources in the state during a control period exceeds the common designated representative's assurance level.

- (v). To the extent the permittee fails to hold TR NO_x Ozone Season allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - (A). The permittee shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - (B). Each TR NO_x Ozone Season allowance that the permittee fails to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBB and the Clean Air Act.

(3) Compliance periods.

- (i). A TR NO_x Ozone Season unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.
- (ii). A TR NO_x Ozone Season unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.

(4) Vintage of allowances held for compliance.

- (i). A TR NO_x Ozone Season allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO_x Ozone Season allowance that was allocated for such control period or a control period in a prior year.
- (ii). A TR NO_x Ozone Season allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO_x Ozone Season allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.

(5) Allowance Management System requirements. Each TR NO_x Ozone Season allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart BBBBB.

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

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

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

(c) Title V permit revision requirements.

- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO_x Ozone Season allowances in accordance with 40 CFR part 97, subpart BBBBB.
- (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.530 through 97.535, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted

monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.506(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

(d) Additional recordkeeping and reporting requirements.

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

(e) Liability.

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

(f) Effect on other authorities.

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

PERMIT CONDITION 9
 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

EP-9 Emergency Fire Pump	
Emission Unit	Description
EP-9	Emergency Diesel Fire Pump – for use in case of a fire; 1.2 MMBtu/hr; 105 HP; Constructed 2001; Manufacturer/Model No.: Caterpillar/3208 D.I.N.A.

Emission Limitations:

The permittee shall not cause or permit the emission of gases into the atmosphere containing more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide or more than thirty-five milligrams per cubic meter (35 mg/cubic meter) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three (3)-hour time period.

Monitoring/Recordkeeping:

Compliance with Permit Condition 10 - As required by Permit Condition 10.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after exceeding any of the emissions limitations of this permit condition.
- 2) The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION 10
 10 CSR 10-6.261 Control of Sulfur Dioxide Emissions

EP-9 Emergency Fire Pump	
Emission Unit	Description
EP-9	Emergency Diesel Fire Pump – for use in case of a fire; 1.2 MMBtu/hr; 105 HP; Constructed 2001; Manufacturer/Model No.: Caterpillar/3208 D.I.N.A.

10 CSR 10-6.260 was rescinded from the Missouri Code of State Regulations Rules on November 30, 2015 and replaced by 10 CSR 10-6.261; however the provisions of 10 CSR 10-6.260 currently remain in the State Implementation Plan and are federally enforceable. The provisions of 10 CSR 10-6.260 will expire and the provisions of 10 CSR 10-6.261 will become federally enforceable once 10 CSR 10-6.261 is incorporated into the federally-approved SIP as a final EPA action. Permit Condition 9 will expire and the limitations thereof will no longer apply to the installation once 10 CSR 10-6.261 is incorporated into the SIP. No action on the part of the permittee is required to remove Permit Condition 9 from the operating permit.

Emission Limitation:

- 1) The permittee must limit the fuel sulfur content to no more than 8,812 parts per million (ppm) for distillate fuel.

Monitoring/Recordkeeping:

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

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program's

Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION 11
 10 CSR 10-6.075 Maximum Achievable Control Technology Regulation
 40 CFR Part 63 Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for
 Stationary Reciprocating Internal Combustion Engines

EP-9 Emergency Fire Pump	
Emission Unit	Description
EP-9	Emergency Diesel Fire Pump – for use in case of a fire; 1.2 MMBtu/hr; 105 HP; Constructed 2001; Manufacturer/Model No.: Caterpillar/3208 D.I.N.A.

Emission / Operational Limitations:

- 1) The permittee must comply with the requirements in Table 2d of 40 CFR part 63 Subpart ZZZZ: [§63.6603(a)]

Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

For each . . .	You must meet the following requirement, except during periods of startup . . .
Emergency stationary CI RICE ²	Change oil and filter every 500 hours of operation or annually, whichever comes first; ¹
	Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
	Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

¹Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart.

²If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

Annual Usage Limitations:

- 1) The permittee shall operate the emergency stationary RICE according to the requirements in paragraphs §63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under 40 CFR 63 Subpart ZZZZ, any operation other than emergency operation,

maintenance and testing, emergency demand response, and operation in non-emergency situations for more than 50 hours per year, as described in paragraphs §63.6640(f)(1) through (4), is prohibited. If you do not operate the engine according to the requirements in paragraphs §63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR 63 Subpart ZZZZ and must meet all requirements for non-emergency engines. [§63.6640(f)]

- a) There is no time limit on the use of emergency stationary RICE in emergency situations. [§63.6640(f)(1)]
- b) The permittee may operate the emergency stationary RICE for any combination of the purposes specified in paragraphs §63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs §63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by this paragraph §63.6640(f)(2). [§63.6640(f)(2)]
 - i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [§63.6640(f)(2)(i)]

Record Keeping:

- 1) The permittee must keep the following records for this engine: [§63.6655(a)]
 - a) Records of the occurrence and duration of each malfunction of process equipment or any air pollution control and monitoring equipment and actions taken during periods of malfunction to minimize emissions including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [§63.6655(a)(2) and §63.6655(a)(5)]
 - b) Records of all required maintenance performed on the air pollution control and monitoring equipment. [§63.6655(a)(4)]
 - c) Records that the engine was operated and maintained according to the manufacturer's emission-related operation and maintenance instructions or that a maintenance plan has been developed to provide for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [§63.6655(e)]
 - d) Records of the hours of operation for the engine as measured by the non-resettable hour meter. The installation shall also maintain a record keeping form indicating out of the total hours measured by the meter: [§63.6655(f)]
 - i) How many hours were spent in emergency use and a brief description of the emergency situation.
 - ii) How many hours were spent in non-emergency operation.
 - e) These records must be made available for inspection upon request by Missouri DNR personnel. [§63.6660(a)]
 - f) All records shall be maintained for five (5) years. [§63.6660(b)]
 - g) Records shall be kept readily accessible in hard copy or electronic form. [§63.6660(c)]

Reporting:

- 1) The permittee shall submit reports to EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219.
- 2) The permittee shall report any deviations/exceedance of this permit condition using the semi-annual monitoring report and annual compliance certifications to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

IV. Core Permit Requirements

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

10 CSR 10-6.045 Open Burning Requirements

- 1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
- 2) Certain types of materials may be open burned provided an open burning permit is obtained from the director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the owner or operator fails to comply with the conditions or any provisions of the permit.

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

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information to the director in writing at least ten days prior to any maintenance, start-up or shutdown activity which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, notice shall be given as soon as practicable prior to the activity.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.

- 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

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

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. The permittee shall retain the most current operating permit issued to this installation on-site. The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request.

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

- 1) The permittee shall submit a Full Emissions Report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the director.
- 2) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
- 3) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079.

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

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

10 CSR 10-6.150 Circumvention

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

10 CSR 10-6.165 Restriction of Emission of Odors

This requirement is not federally enforceable.

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

10 CSR 10-6.170

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

Emission Limitation:

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

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

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

10 CSR 10-6.280 Compliance Monitoring Usage

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;

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

40 CFR Part 82 Protection of Stratospheric Ozone (Title VI)
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- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
- a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to 40 CFR §82.106.
 - b) The placement of the required warning statement must comply with the requirements of 40 CFR §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements of 40 CFR §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in 40 CFR §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B of 40 CFR Part 82:
- a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices described in 40 CFR §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment described in 40 CFR §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with the record keeping requirements of 40 CFR §82.166. ("MVAC-like" appliance as defined at 40 CFR §82.152).

- e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
 - 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements contained in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
 - 5) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part 82.*

V. General Permit Requirements

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

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

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

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

- 1) Record Keeping
 - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
 - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
- 2) Reporting
 - a) All reports shall be submitted to the Air Pollution Control Program, Compliance and Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
 - b) The permittee shall submit a report of all required monitoring by:
 - i) October 1st for monitoring which covers the January through June time period, and
 - ii) April 1st for monitoring which covers the July through December time period.
 - c) Each report shall identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
 - d) Submit supplemental reports as required or as needed. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.
 - ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
 - iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in this permit, and

no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.

- e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- f) The permittee may request confidential treatment of information submitted in any report of deviation.

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

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

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

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

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

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

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

An Acid Rain permit is being issued with this operating permit. It is included as Attachment C.

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

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

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

- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit

modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

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

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

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

None.

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

- 1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- 2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- 3) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA

Region VII, 11201 Renner Blvd., Lenexa, KS 66219, as well as the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:

- a) The identification of each term or condition of the permit that is the basis of the certification;
- b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
- c) Whether compliance was continuous or intermittent;
- d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
- e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

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

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

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

- 1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
 - a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
 - b) That the installation was being operated properly,
 - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
 - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.

- 2) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

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

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1) Section 502(b)(10) changes. Changes that, under section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), record keeping, reporting or compliance requirements of the permit.
 - a) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the APCP shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the APCP as above at least seven days before the change is to be made. If less than seven 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 permit, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
 - b) The permittee must provide contemporaneous written notice of the change to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3 of this

- rule. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
- c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
 - d) The permit shield shall not apply to these changes.

10 CSR 10-6.020(2)(R)34 Responsible Official

The application utilized in the preparation of this permit was signed by Ajay Arora, VP Environmental Services & Generation Resource Planning. 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 Operational Schedule

Ameren Missouri – Audrain Energy Center

This sheet covers the period from _____ to _____.
 (month/year) (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 Rolling Total Electricity Hours From Previous Month's Worksheet	(Note 2)
Monthly Total Electricity Hours From Previous Year's Worksheet	(Note 3)
Current 12-Month Rolling 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 Operational Schedule

Ameren Missouri - Audrain Energy Center

This sheet covers the period from _____ to _____.
(month/year) (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 Rolling 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 Rolling Total Unit Gas Hours (Note 4)	

Note 1: Total number of hours that this turbine 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
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: Ameren Missouri Audrain Energy Center
ORIS Code: 55234
Unit ID: Combustion Turbines 1 through 8 (EP-1 through EP-8)

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

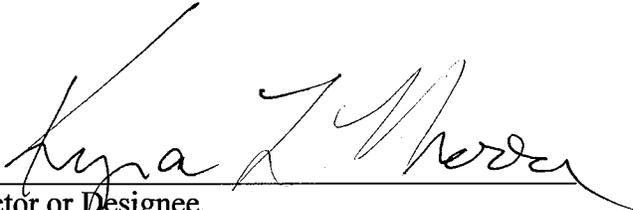
The number of allowances actually held by an affected source in a unit account may differ from the number allocated by the United States Environmental Protection Agency. Pursuant to 40 CFR 72.84, *Automatic permit amendment*, this does not necessitate a revision to any unit SO₂ allowance allocations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

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

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 31 2017

Date



Director or Designee,
Department of Natural Resources

Plant Name (from Step 1) Ameren Missouri Audrain Energy Center

STEP 3

**Read the
standard
requirements**

Permit Requirements

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

Monitoring Requirements

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

Sulfur Dioxide Requirements

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

Ameren Missouri Audrain Energy Center Plant Name (from Step 1)

Acid Rain - Page 3

STEP 3,
Cont'd.

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

Excess Emissions Requirements

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

Recordkeeping and Reporting Requirements

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

Liability

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

Plant Name (from Step 1)	Ameren Missouri Audrain Energy Center
--------------------------	---------------------------------------

Step 3,
Cont'd.

Liability, Cont'd.

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

Effect on Other Authorities

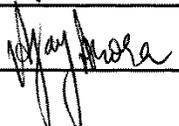
- No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:
- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the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

STEP 4

Read the
certification
statement,
sign, and
date

Certification

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

Name Ajay K. Arora - Alternate Designated Representative	
Signature 	Date 10-14-2015

ATTACHMENT D
CAIR Permit

TITLE V: CLEAN AIR INTERSTATE RULE (CAIR) PERMIT

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

Installation Name: Ameren Missouri Audrain Energy Center
ORIS Code: 55234
Unit ID: Combustion Turbines 1 through 8 (EP-1 through EP-8)

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

This CAIR Permit applies only to the Combustion Turbines 1 through 8 (EP-1 through EP-8) at Ameren Missouri Audrain Energy Center, plant 007-0053.

This CAIR 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 CAIR permit in conjunction with the operating permit renewal application.

JAN 31 2017

Date



Director or Designee,
Department of Natural Resources

CAIR Permit Application

(for sources covered under a CAIR SIP)

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

This submission is: New Revised

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

Plant Name	Audrain Energy Center	State	MO	ORIS/Facility Code	55234
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STEP 2
 Enter the unit ID# for each CAIR unit and indicate to which CAIR programs each unit is subject (by placing an "X" in the column)

Unit ID#	NO _x Annual	SO ₂	NO _x Ozone Season
CT1	X	X	X
CT2	X	X	X
CT3	X	X	X
CT4	X	X	X
CT5	X	X	X
CT6	X	X	X
CT7	X	X	X
CT8	X	X	X

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

Standard Requirements

(a) Permit Requirements.

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

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

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

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

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

Plant Name (from Step 1) **Audrain Energy Center**

CAIR Permit Application
Page 2

**STEP 3,
continued**

(b) Monitoring, reporting, and recordkeeping requirements.

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

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

(c) Nitrogen oxides emissions requirements.

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

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

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

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

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

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

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

Sulfur dioxide emission requirements.

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

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

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

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

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

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

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

Nitrogen oxides ozone season emissions requirements.

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

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

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

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

(5) A CAIR NO_x Ozone Season allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_x Ozone Season Trading Program. No provision of the CAIR NO_x Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under §96.305 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.

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

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

Plant Name (from Step 1) **Audrain Energy Center**

CAIR Permit Application
Page 3

**STEP 3,
continued**

(d) Excess emissions requirements.

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

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

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

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

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

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

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

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

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

(e) Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x Ozone Season source (as applicable) and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.

(i) The certificate of representation under §96.113, §96.213, and §96.313 (as applicable) for the CAIR designated representative for the source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under §96.113, §96.213, and §96.313 (as applicable) changing the CAIR designated representative.

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

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

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

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

(f) Liability.

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

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

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

Plant Name (from Step 1) **Audrain Energy Center**

CAIR Permit Application
Page 4

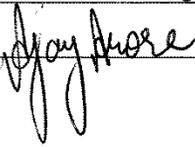
**STEP 3,
continued**

(g) Effect on Other Authorities.

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

Certification

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

Name Ajay K. Arora – Alternate Designated Representative	
Signature 	Date 10-14-2015

ATTACHMENT E

Appendix E to Part 75 – Optional NO_x Emissions Estimation Protocol for Gas-Fired Peaking Units and Oil-Fired Peaking Units

1. APPLICABILITY

1.1 Unit Operation Requirements

This NO_x emissions estimation procedure may be used in lieu of a continuous NO_x emission monitoring system (lb/mmBtu) for determining the average NO_x emission rate and hourly NO_x rate from gas-fired peaking units and oil-fired peaking units as defined in §72.2 of this chapter. If a unit's operations exceed the levels required to be a peaking unit, the owner or operator shall install and certify a NO_x-diluent continuous emission monitoring system no later than December 31 of the following calendar year. If the required CEMS has not been installed and certified by that date, the owner or operator shall report the maximum potential NO_x emission rate (MER) (as defined in §72.2 of this chapter) for each unit operating hour, starting with the first unit operating hour after the deadline and continuing until the CEMS has been provisionally certified. The provision of §75.12 apply to excepted monitoring systems under this appendix.

1.2 Certification

1.2.1 Pursuant to the procedures in §75.20, complete all testing requirements to certify use of this protocol in lieu of a NO_x continuous emission monitoring system no later than the applicable deadline specified in §75.4. Apply to the Administrator for certification to use this method no later than 45 days after the completion of all certification testing. Whenever the monitoring method is to be changed, reapply to the Administrator for certification of the new monitoring method.

1.2.2 [Reserved]

2. PROCEDURE

2.1 Initial Performance Testing

Use the following procedures for: measuring NO_x emission rates at heat input rate levels corresponding to different load levels; measuring heat input rate; and plotting the correlation between heat input rate and NO_x emission rate, in order to determine the emission rate of the unit(s). The requirements in section 6.1.2 of appendix A to this part shall apply to any stack testing performed to obtain O₂ and NO_x concentration measurements under this appendix, either for units using the excepted methodology in this appendix or for units using the low mass emissions excepted methodology in §75.19.

2.1.1 Load Selection

Establish at least four approximately equally spaced operating load points, ranging from the maximum operating load to the minimum operating load. Select the maximum and minimum operating load from the operating history of the unit during the most recent two years. (If projections indicate that the unit's maximum or minimum operating load during the next five years will be significantly different from the most recent two years, select the maximum and minimum operating load based on the projected dispatched load of the unit.) For new gas-fired peaking units or new oil-fired peaking units, select the maximum and minimum operating load from the expected maximum and minimum load to be dispatched to the unit in the first five calendar years of operation.

2.1.2 NO_x and O₂ Concentration Measurements

Use the following procedures to measure NO_x and O₂ concentration in order to determine NO_x emission rate.

2.1.2.1 For boilers, select an excess O₂ level for each fuel (and, optionally, for each combination of fuels) to be combusted that is representative for each of the four or more load levels. If a boiler operates using a single, consistent combination of fuels only, the testing may be performed using the combination rather than each fuel. If a fuel is combusted only for the purpose of testing ignition of the burners for a period of five minutes or less per ignition test or for start-up, then the boiler NO_x emission rate does not need to be tested separately for that fuel.

Operate the boiler at a normal or conservatively high excess oxygen level in conjunction with these tests. Measure the NO_x and O₂ at each load point for each fuel or consistent fuel combination (and, optionally, for each combination of fuels) to be combusted. Measure the NO_x and O₂ concentrations according to method 7E and 3A in appendix A of part 60 of this chapter. Use a minimum of 12 sample points, located according to Method 1 in appendix A-1 to part 60 of this chapter. The designated representative for the unit may also petition the Administrator under §75.66 to use fewer sampling points. Such a petition shall include the proposed alternative sampling procedure and information demonstrating that there is no concentration stratification at the sampling location.

2.1.2.2 For stationary gas turbines, sample at a minimum of 12 points per run at each load level. Locate the sample points according to Method 1 in appendix A-1 to part 60 of this chapter. For each fuel or consistent combination of fuels (and, optionally, for each combination of fuels), measure the NO_x and O₂ concentrations at each sampling point using methods 7E and 3A in appendices A-4 and A-2 to part 60 of this chapter. For diesel or dual fuel reciprocating engines, select the sampling site to be as close as practicable to the exhaust of the engine.

2.1.2.3 Allow the unit to stabilize for a minimum of 15 minutes (or longer if needed for the NO_x and O₂ readings to stabilize) prior to commencing NO_x, O₂, and heat input measurements. Determine the measurement system response time according to sections 8.2.5 and 8.2.6 of method 7E in appendix A-4 to part 60 of this chapter. When inserting the probe into the flue gas for the first sampling point in each traverse, sample for at least one minute plus twice the measurement system response time (or longer, if necessary to obtain a stable reading).

For all other sampling points in each traverse, sample for at least one minute plus the measurement system response time (or longer, if necessary to obtain a stable reading). Perform three test runs at each load condition and obtain an arithmetic average of the runs for each load condition. During each test run on a boiler, record the boiler excess oxygen level at 5 minute intervals.

2.1.3 Heat Input

Measure the total heat input (mmBtu) and heat input rate during testing (mmBtu/hr) as follows:

2.1.3.1 When the unit is combusting fuel, measure and record the flow of fuel consumed. Measure the flow of fuel with an in-line flowmeter(s) and automatically record the data. If a portion of the flow is diverted from the unit without being burned, and that diversion occurs downstream of the fuel flowmeter, an in-line flowmeter is required to account for the unburned fuel. Install and calibrate in-line flow meters using the procedures and specifications contained in sections 2.1.2, 2.1.3, 2.1.4, and 2.1.5 of appendix D of this part. Correct any gaseous fuel flow rate measured at actual temperature and pressure to standard conditions of 68 °F and 29.92 inches of mercury.

2.1.3.2 For liquid fuels, analyze fuel samples taken according to the requirements of section 2.2 of appendix D of this part to determine the heat content of the fuel. Determine heat content of liquid or gaseous fuel in accordance with the procedures in appendix F of this part. Calculate the heat input rate during testing (mmBtu/hr) associated with each load condition in accordance with equations F-19 or F-20 in appendix F of this part and total heat input using equation E-1 of this appendix. Record the heat input rate at each heat input/load point.

2.1.4 Emergency Fuel

The designated representative of a unit that is restricted by its federal, State or local permit to combusting a particular fuel only during emergencies where the primary fuel is not available may claim an exemption from the requirements of this appendix for testing the NO_x emission rate during combustion of the emergency fuel. To claim this exemption, the designated representative shall include in the monitoring plan for the unit documentation that the permit restricts use of the fuel to emergencies only. When emergency fuel is combusted, report the maximum potential NO_x emission rate for the emergency fuel, in accordance with section 2.5.2.3 of this appendix. The designated representative shall also provide notice under §75.61(a)(6) for each period when the emergency fuel is combusted.

2.1.5 Tabulation of Results

Tabulate the results of each baseline correlation test for each fuel or, as applicable, combination of fuels, listing: time of test, duration, operating loads, heat input rate (mmBtu/hr), F-factors, excess oxygen levels, and NO_x concentrations (ppm) on a dry basis (at actual excess oxygen level). Convert the NO_x concentrations (ppm) to NO_x emission rates (to the nearest 0.001 lb/mmBtu) according to equation F-5 of appendix F of this part or 19-3 in method 19 of appendix A of part 60 of this chapter, as appropriate. Calculate the NO_x emission rate in lb/mmBtu for each sampling point and determine the arithmetic average NO_x emission rate of each test run. Calculate the arithmetic average of the boiler excess oxygen readings for each test run. Record the arithmetic average of the three test runs as the NO_x emission rate and the boiler excess oxygen level for the heat input/load condition.

2.1.6 Plotting of Results

Plot the tabulated results as an x-y graph for each fuel and (as applicable) combination of fuels combusted according to the following procedures.

2.1.6.1 Plot the heat input rate (mmBtu/hr) as the independent (or x) variable and the NO_x emission rates (lb/mmBtu) as the dependent (or y) variable for each load point. Construct the graph by drawing straight line segments between each load point. Draw a horizontal line to the y-axis from the minimum heat input (load) point.

2.1.6.2 Units that co-fire gas and oil may be tested while firing gas only and oil only instead of testing with each combination of fuels. In this case, construct a graph for each fuel.

2.2 Periodic NO_x Emission Rate Testing

Retest the NO_x emission rate of the gas-fired peaking unit or the oil-fired peaking unit while combusting each type of fuel (or fuel mixture) for which a NO_x emission rate versus heat input rate correlation curve was derived, at least once every 20 calendar quarters. If a required retest is not completed by the end of the 20th calendar quarter following the quarter of the last test, use the missing data substitution procedures in section 2.5 of this appendix, beginning with the first unit operating hour after the end of the 20th calendar quarter. Continue using the missing data procedures until the required retest has been passed. Note that missing data substitution is fuel-specific (i.e., the use of substitute data is required only when combusting a fuel (or fuel mixture) for which the retesting deadline has not been met). Each time that a new fuel-specific correlation curve is derived from retesting, the new curve shall be used to report NO_x emission rate, beginning with the first operating hour in which the fuel is combusted, following the completion of the retest. Notwithstanding this requirement, for non-Acid Rain Program units that report NO_x mass emissions and heat input data only during the ozone season under §75.74(c), if the NO_x emission rate testing is performed outside the ozone season, the new correlation curve may be used beginning with the first unit operating hour in the ozone season immediately following the testing.

2.3 Other Quality Assurance/Quality Control-Related NO_x Emission Rate Testing

When the operating levels of certain parameters exceed the limits specified below, or where the Administrator issues a notice requesting retesting because the NO_x emission rate data availability for when the unit operates within all quality assurance/quality control parameters in this section since the last test is less than

90.0 percent, as calculated by the Administrator, complete retesting of the NO_x emission rate by the earlier of: (1) 30 unit operating days (as defined in §72.2 of this chapter) or (2) 180 calendar days after exceeding the limits or after the date of issuance of a notice from the Administrator to re-verify the unit's NO_x emission rate. Submit test results in accordance with §75.60 within 45 days of completing the retesting.

2.3.1 For a stationary gas turbine, select at least four operating parameters indicative of the turbine's NO_x formation characteristics, and define in the QA plan for the unit the acceptable ranges for these parameters at each tested load-heat input point. The acceptable parametric ranges should be based upon the turbine manufacturer's recommendations. Alternatively, the owner or operator may use sound engineering judgment and operating experience with the unit to establish the acceptable parametric ranges, provided that the rationale for selecting these ranges is included as part of the quality-assurance plan for the unit. If the gas turbine uses water or steam injection for NO_x control, the water/fuel or steam/fuel ratio shall be one of these parameters. During the NO_x-heat input correlation tests, record the average value of each parameter for each load-heat input to ensure that the parameters are within the acceptable range. Redetermine the NO_x emission rate-heat input correlation for each fuel and (optional) combination of fuels after continuously exceeding the acceptable range of any of these parameters for one or more successive operating periods totaling more than 16 unit operating hours.

2.3.2 For a diesel or dual-fuel reciprocating engine, select at least four operating parameters indicative of the engine's NO_x formation characteristics, and define in the QA plan for the unit the acceptable ranges for these parameters at each tested load-heat input point. The acceptable parametric ranges should be based upon the engine manufacturer's recommendations. Alternatively, the owner or operator may use sound engineering judgment and operating experience with the unit to establish the acceptable parametric ranges, provided that the rationale for selecting these ranges is included as part of the quality-assurance plan for the unit. Any operating parameter critical for NO_x control shall be included. During the NO_x heat-input correlation tests, record the average value of each parameter for each load-heat input to ensure that the parameters are within the acceptable range. Redetermine the NO_x emission rate-heat input correlation for each fuel and (optional) combination of fuels after continuously exceeding the acceptable range of any of these parameters for one or more successive operating periods totaling more than 16 unit operating hours.

2.3.3 For boilers using the procedures in this appendix, the NO_x emission rate heat input correlation for each fuel and (optional) combination of fuels shall be redetermined if the excess oxygen level at any heat input rate (or unit operating load) continuously exceeds by more than 2 percentage points O₂ from the boiler excess oxygen level recorded at the same operating heat input rate during the previous NO_x emission rate test for one or more successive operating periods totaling more than 16 unit operating hours.

2.4 Procedures for Determining Hourly NO_x Emission Rate

2.4.1 Record the time (hr. and min.), load (MWge or steam load in 1000 lb/hr, or mmBtu/hr thermal output), fuel flow rate and heat input rate (using the procedures in section 2.1.3 of this appendix) for each hour during which the unit combusts fuel. Calculate the total hourly heat input using equation E-1 of this appendix. Record the heat input rate for each fuel to the nearest 0.1 mmBtu/hr. During partial unit operating hours or during hours where more than one fuel is combusted, heat input must be represented as an hourly rate in mmBtu/hr, as if the fuel were combusted for the entire hour at that rate (and not as the actual, total heat input during that partial hour or hour) in order to ensure proper correlation with the NO_x emission rate graph.

2.4.2 Use the graph of the baseline correlation results (appropriate for the fuel or fuel combination) to determine the NO_x emissions rate (lb/mmBtu) corresponding to the heat input rate (mmBtu/hr). Input this correlation into the data acquisition and handling system for the unit. Linearly interpolate to 0.1 mmBtu/hr heat input rate and 0.001 lb/mmBtu NO_x. For each type of fuel, calculate NO_x emission rate using the baseline correlation results from the most recent test with that fuel, beginning with the date and hour of the completion of the most recent test.

2.4.3 To determine the NO_x emission rate for a unit co-firing fuels that has not been tested for that combination of fuels, interpolate between the NO_x emission rate for each fuel as follows. Determine the heat input rate for the hour (in mmBtu/hr) for each fuel and select the corresponding NO_x emission rate for each fuel on the

appropriate graph. (When a fuel is combusted for a partial hour, determine the fuel usage time for each fuel and determine the heat input rate from each fuel as if that fuel were combusted at that rate for the entire hour in order to select the corresponding NO_x emission rate.) Calculate the total heat input to the unit in mmBtu for the hour from all fuel combusted using Equation E-1. Calculate a Btu-weighted average of the emission rates for all fuels using Equation E-2 of this appendix. For each type of fuel, calculate NO_x emission rate using the baseline correlation results from the most recent test with that fuel, beginning with the date and hour of the completion of the most recent test.

2.4.4 For each hour, record the critical quality assurance parameters, as identified in the monitoring plan, and as required by section 2.3 of this appendix from the date and hour of the completion of the most recent test for each type of fuel.

2.5 Missing Data Procedures

Provide substitute data for each unit electing to use this alternative procedure whenever a valid quality-assured hour of NO_x emission rate data has not been obtained according to the procedures and specifications of this appendix. For the purpose of providing substitute data, calculate the maximum potential NO_x emission rate (as defined in §72.2 of this chapter) for each type of fuel combusted in the unit.

2.5.1 Use the procedures of this section whenever any of the quality assurance/quality control parameters exceeds the limits in section 2.3 of this appendix or whenever any of the quality assurance/quality control parameters are not available.

2.5.2 Substitute missing NO_x emission rate data using the highest NO_x emission rate tabulated during the most recent set of baseline correlation tests for the same fuel or, if applicable, combination of fuels, except as provided in sections 2.5.2.1, 2.5.2.2, 2.5.2.3, and 2.5.2.4 of this appendix.

2.5.2.1 If the measured heat input rate during any unit operating hour is higher than the highest heat input rate from the baseline correlation tests, the NO_x emission rate for the hour is considered to be missing. Provide substitute data for each such hour, according to section 2.5.2.1.1 or 2.5.2.1.2 of this appendix, as applicable.
Either:

2.5.2.1.1 Substitute the higher of: the NO_x emission rate obtained by linear extrapolation of the correlation curve, or the maximum potential NO_x emission rate (MER) (as defined in §72.2 of this chapter), specific to the type of fuel being combusted. (For fuel mixtures, substitute the highest NO_x MER value for any fuel in the mixture.) For units with NO_x emission controls, the extrapolated NO_x emission rate may only be used if the controls are documented (e.g., by parametric data) to be operating properly during the missing data period (see section 2.5.2.2 of this appendix); or

2.5.2.1.2 Substitute 1.25 times the highest NO_x emission rate from the baseline correlation tests for the fuel (or fuel mixture) being combusted in the unit, not to exceed the MER for that fuel (or mixture). For units with NO_x emission controls, the option to report 1.25 times the highest emission rate from the correlation curve may only be used if the controls are documented (e.g., by parametric data) to be operating properly during the missing data period (see section 2.5.2.2 of this appendix).

2.5.2.2 For a unit with add-on NO_x emission controls (e.g., steam or water injection, selective catalytic reduction), if, for any unit operating hour, the emission controls are either not in operation or if appropriate parametric data are unavailable to ensure proper operation of the controls, the NO_x emission rate for the hour is considered to be missing. Substitute the fuel-specific MER (as defined in §72.2 of this chapter) for each such hour.

2.5.2.3 When emergency fuel (as defined in §72.2) is combusted in the unit, report the fuel-specific NO_x MER for each hour that the fuel is combusted, unless a NO_x correlation curve has been derived for the fuel.

2.5.2.4 Whenever 20 full calendar quarters have elapsed following the quarter of the last baseline correlation test for a particular type of fuel (or fuel mixture), without a subsequent baseline correlation test being done for that type of fuel (or fuel mixture), substitute the fuel-specific NO_x MER (as defined in §72.2 of this chapter) for each hour in which that fuel (or mixture) is combusted until a new baseline correlation test for that fuel (or mixture) has been successfully completed. For fuel mixtures, report the highest of the individual MER values for the components of the mixture.

2.5.3 Maintain a record indicating which data are substitute data and the reasons for the failure to provide a valid quality-assured hour of NO_x emission rate data according to the procedures and specifications of this appendix.

2.5.4 Substitute missing data from a fuel flowmeter using the procedures in section 2.4.2 of appendix D to this part.

2.5.5 Substitute missing data for gross calorific value of fuel using the procedures in sections 2.4.1 of appendix D to this part.

3. CALCULATIONS

3.1 Heat Input

Calculate the total heat input by summing the product of heat input rate and fuel usage time of each fuel, as in the following equation:

$$H_T = HI_{\text{fuel1}}t_1 + HI_{\text{fuel2}}t_2 + HI_{\text{fuel3}}t_3 + \dots + HI_{\text{lastfuel}}t_{\text{last}} \quad (\text{Eq. E-1})$$

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Where:

H_T = Total heat input of fuel flow or a combination of fuel flows to a unit, mmBtu.

$HI_{\text{fuel 1,2,3,...last}}$ = Heat input rate from each fuel, in mmBtu/hr as determined using Equation F-19 or F-20 in section 5.5 of appendix F to this part, mmBtu/hr.

$t_{1,2,3,...last}$ = Fuel usage time for each fuel (rounded up to the nearest fraction of an hour (in equal increments that can range from one hundredth to one quarter of an hour, at the option of the owner or operator)).

3.2 F-factors

Determine the F-factors for each fuel or combination of fuels to be combusted according to section 3.3 of appendix F of this part.

3.3 NO_x Emission Rate

3.3.1 Conversion from Concentration to Emission Rate

Convert the NO_x concentrations (ppm) and O₂ concentrations to NO_x emission rates (to the nearest 0.01 lb/mmBtu for tests performed prior to April 1, 2000, or to the nearest 0.001 lb/mmBtu for tests performed on and after April 1, 2000), according to the appropriate one of the following equations: F-5 in appendix F to this part for dry basis concentration measurements or 19-3 in Method 19 of appendix A to part 60 of this chapter for wet basis concentration measurements.

3.3.2 Quarterly Average NO_x Emission Rate

Report the quarterly average emission rate (lb/mmBtu) as required in subpart G of this part. Calculate the quarterly average NO_x emission rate according to equation F-9 in appendix F of this part.

3.3.3 Annual Average NO_x Emission Rate

Report the average emission rate (lb/mmBtu) for the calendar year as required in subpart G of this part. Calculate the average NO_x emission rate according to equation F-10 in appendix F of this part.

3.3.4 Average NO_x Emission Rate During Co-firing of Fuels

$$E_h = \frac{\sum_{f=1}^{\text{all fuels}} (E_f \times HI_f t_f)}{H_T} \quad (\text{Eq. E-2})$$

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Where:

E_h = NO_x emission rate for the unit for the hour, lb/mmBtu.

E_f = NO_x emission rate for the unit for a given fuel at heat input rate HI_f , lb/mmBtu.

HI_f = Heat input rate for the hour for a given fuel, during the fuel usage time, as determined using Equation F-19 or F-20 in section 5.5 of appendix F to this part, mmBtu/hr.

H_T = Total heat input for all fuels for the hour from Equation E-1.

t_f = Fuel usage time for each fuel (rounded up to the nearest fraction of an hour (in equal increments that can range from one hundredth to one quarter of an hour, at the option of the owner or operator)).

NOTE: For hours where a fuel is combusted for only part of the hour, use the fuel flow rate or mass flow rate during the fuel usage time, instead of the total fuel flow or mass flow during the hour, when calculating heat input rate using Equation F-19 or F-20.

4. QUALITY ASSURANCE/QUALITY CONTROL PLAN

Include a section on the NO_x emission rate determination as part of the monitoring quality assurance/quality control plan required under §75.21 and appendix B of this part for each gas-fired peaking unit and each oil-fired peaking unit. In this section present information including, but not limited to, the following: (1) a copy of all data and results from the initial NO_x emission rate testing, including the values of quality assurance parameters specified in section 2.3 of this appendix; (2) a copy of all data and results from the most recent NO_x emission rate load correlation testing; (3) a copy of the recommended range of quality assurance- and quality control-related operating parameters.

4.1 Submit a copy of the recommended range of operating parameter values, and the range of operating parameter values recorded during the previous NO_x emission rate test that determined the unit's NO_x emission rate, along with the unit's revised monitoring plan submitted with the certification application.

4.2 Keep records of these operating parameters for each hour of operation in order to demonstrate that a unit is remaining within the recommended operating range

STATEMENT OF BASIS

INSTALLATION DESCRIPTION

Ameren Missouri Audrain Energy Center, formerly Duke Energy North America, LLC consists of eight simple-cycle, 80 Megawatt nominal combustion turbine generators for a total nominal plant capacity of 640 MW. The turbines are used as peaking units during periods of high demand. The turbines are equipped to burn only natural gas which is supplied by a nearby gas transmission line and they are equipped with dry low NOx combustors. The turbines were originally permitted to also burn diesel fuel as back up but they were not constructed with that capability. There is also a 140 kW emergency diesel fire pump on site. This facility is a minor source of all criteria pollutants due to limits taken on the hours of operation of the turbines. It is on the list of named sources [10 CSR 10-6.020(3)(B), Table 2, Number 27].

Updated Potential to Emit for the Installation

Pollutant	Potential to Emit (tons/yr) ¹
PM ₁₀	15.30
PM _{2.5}	15.30
Sulfur Oxides (SO _x)	0.21
Nitrogen Oxides (NO _x)	15.67
Volatile Organic Compounds	0.69
Carbon Monoxide (CO)	19.32
Hazardous Air Pollutants (HAP's)	<25.0
Formaldehyde	<10.0

Potential Emissions were calculated using emissions data from the 2015 EIQ including CEMS data for NOx, Potential Emissions were calculated assuming a maximum of 4,000 hours operation of the combustion turbines. Emissions of formaldehyde are limited to less than 10 tons per year per special condition 11 of Construction Permit 052000-015 but are actually closer to 1.64 when considering the operational limitations. Total HAP emissions were not calculated but are assumed to be under 25.0 tons/year. Fuel sulfur content for the emergency fire pump was assumed to be 0.5% and the emergency fire pump was evaluated at 500 hours of use per year.

Reported Air Pollutant Emissions, tons per year

Pollutants	2015	2014	2013	2012	2011
Particulate Matter ≤ Ten Microns (PM ₁₀)	0.09	0.07	0.93	2.74	6.21
Particulate Matter ≤ 2.5 Microns (PM _{2.5})	0.02	0.07	0.93	2.74	---
Sulfur Oxides (SO _x)	---	---	0.08	0.25	0.36
Nitrogen Oxides (NO _x)	0.63	0.52	13.54	39.80	56.02
Volatile Organic Compounds (VOC)	0.02	0.02	0.27	0.81	1.14
Carbon Monoxide (CO)	0.82	0.67	7.96	23.39	32.92

NOTE: Actual emissions of NOx, and CO in years 2012 and previous are higher than current potential emissions due to changes in the emission factors used to calculate PTE which are derived from stack tests and CEMs data.

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 October 20, 2015; revised June 20, 2016;
- 2) 2015 Emissions Inventory Questionnaire, received April 25, 2016; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition; and
- 4) Construction Permit 052000-015.

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.

10 CSR 10-6.261, *Control of Sulfur Dioxide Emissions*

This new state regulation is applicable to the Emergency Fire Pump.

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 10-6.350 *Emission Limitations and Emissions Trading of Oxides of Nitrogen* is not applicable to this facility. The facility is exempted under 10 CSR 10-6.350(1)(F) because the facility is subject to and implementing the requirements of 10 CSR 10-6.364 *Clean Air Interstate Rule Seasonal NOx Trading Program*.

10 CSR 10-6.360 *Control of NOx Emissions From Electric Generating Units and Non-Electric Generating Boilers* is not applicable to this facility. The facility is exempted under 10 CSR 10-6.360(1)(H) because the facility is subject to and implementing the requirements of 10 CSR 10-6.364 *Clean Air Interstate Rule Seasonal NOx Trading Program*.

Construction Permit History

The following revisions were made to construction permits for this installation:

Construction Permit 052000-015 Special Conditions 18-22

Special Conditions 18-22 are not included in the operating permit because these conditions deal with the compliance testing that has been performed.

Test results from test performed May 7-11, 2001:

Emission Unit	Pollutant	Emission Limit	Results
EU1	CO	25 ppmvd	13.9 ppmv
EU3			6.2 ppmv
EU5			5.8 ppmv
EU1	PM	0.016 lb/MMBtu	0.005 lb/MMBtu
EU3			0.004 lb/MMBtu
EU5			0.005 lb/MMBtu
EU1	NOx	12 ppmvd	7.4 ppmvd
EU3			7.8 ppmvd
EU5			7.1 ppmvd
EU1	Formaldehyde	10 tons/year	<0.158 lb/hr*
EU3			<0.131 lb/hr*
EU5			<0.117 lb/hr*

*The turbines are limited to 4,000 hours of operation per year so formaldehyde emissions will never be over 10 tons/year if the hours of operation limitation is not exceeded.

Construction Permit 052000-015

The facility does not currently have the equipment to utilize low sulfur transportation grade diesel fuel as a fuel for the gas turbines. The necessary equipment to allow this has not been constructed within the two years required after the issuance of the construction permit, therefore the installation will be required to request a review from the Construction Permit Unit if it decides to use diesel fuel in the future. Since the gas turbines do not have the ability to burn diesel fuel, the special conditions from Construction Permit 052000-015 concerning diesel fuel have not been incorporating into this operating permit. The following is a list of special conditions that have either been altered or are not included in the operating permit:

Special Condition 1: The condition states that the installation shall burn only natural gas or low sulfur transportation grade diesel fuel at the installation. This condition has not been revised since the emergency fire pump is permitted to burn diesel fuel.

Special Condition 4: this condition limits the number of hours that each turbine generator could burn diesel fuel. Each generator was limited to less than 500 hours in every consecutive 12-month rolling period. Since the installation is no longer allowed to burn diesel fuel in the turbines, this condition is not included in the operating permit.

Special Conditions 8 through 10: These conditions establish the emission limitations for the eight turbines when firing diesel fuel, therefore they are not included in the operating permit.

Special Condition 12: The installation was required to install and operate a water spray injection system to control NOx emission from the eight turbines when firing diesel fuel. Since the turbines can no longer burn diesel fuel this condition is not included in the operating permit.

Special Condition 14: This condition states that the installation shall keep monthly records to determine compliance with Special Conditions 3 and 4. Special Condition 4 is not included in the operating permit, therefore Special Condition 14 has been revised as follows:

“The permittee shall keep monthly records that are adequate to determine compliance with Emission Limitation No. 3. Attachment D, Individual Operational Schedule, 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.”

Special Conditions 24 through 27: These conditions require the permittee to install, calibrate, maintain and operate continuous monitoring systems for measuring NO_x on each of the turbines. In a letter received June 14, 2016, Ameren proposed to develop an optional NO_x emission estimation protocol under 40 CFR 75 Appendix E that can be used at units meeting the definition of gas fired peaking units in lieu of the NO_x-diluent CEMS in accordance with 40 CFR 75.12(d). The permittee explains that the CEMS currently installed and operating are aging and that spare parts and other manufacturer support are becoming increasingly limited making maintenance and repair activities a significant issue. The permittee has made the decision to pursue a Part 75 Appendix E NO_x Emissions Estimation Protocol for determining NO_x emissions at each of the units at the Audrain Energy Center. In order to be eligible for this alternative monitoring option, the combustion turbines must meet the definition of a gas-fired peaking unit per the definition contained in 40 CFP 72 which limits the turbine’s capacity factor to 20% during any given year and to no greater than 10% over three years. A requirement to return to NO_x monitoring using NO_x-diluent CEMS in the calendar year following any year a unit exceeds the capacity factor maximums for meeting the definition of a gas fired peaking unit in 40 CFR 72.2 in accordance with the requirement in 40 CFR 72.12(d)(2) has been added to Permit Condition 1. [See Appendix 1 of the statement of basis for detailed requirements for the optional NO_x emissions estimation protocol.]

Special Condition 29: The reference to diesel fuel has been removed from this condition since the turbines cannot burn diesel fuel.

Special Condition 30: This condition requires reporting to the Air Pollution Control Program’s Enforcement Section within ten days of an exceedance of the limitation established by Special Condition, since Special Condition 4 is not included in the operating permit, this condition was omitted as well.

Construction Permit 052000-015, Special Conditions 16-17: These conditions were not included in the permit as they contain requirements of the turbines regarding the use of diesel fuel.

Special Condition 11 includes an emission limitation for formaldehyde of less than 10 tons in every consecutive 12-month period. Because the combustion turbines are limited to a maximum 4,000 hours total operation per 12-month period, the potential to emit for formaldehyde was calculated assuming this operational limitation. The total potential to emit formaldehyde from the turbines and the emergency fire pump (evaluated at 500 hours operation per year), using emission factors from WebFIRE is only 1.64 tons/year, meaning that when in compliance with all operational limitations, the 10 ton/year limit cannot be exceeded. Therefore Special Condition 15 which includes monitoring, recordkeeping and reporting for the formaldehyde limit is not included in this operating permit.

Potential to Emit Calculation for formaldehyde:

Emission Unit	Description	Heat Input Rate (MMBtu/hr)	Formaldehyde EF	Hours of Operation	PTE (tpy)
EU1-EU8	Combustion Turbines 1-8	1158	0.158 ¹ lb/hr	4,000	0.316
EU9	Emergency Fire Pump	1.2	0.0000789 ² lb/MMBtu	500	.000023
TOTAL					1.64

¹Emission factor for Combustion Turbines taken from highest result from stack test results from May 2001.
²Emission factor for Emergency Fire Pump taken from WebFIRE for SCC 20200401.

New Source Performance Standards (NSPS) Applicability

40 CFR Part 60 Subpart GG, *Standards of Performance for Stationary Gas Turbines*

This subpart applies to the combustion turbines (EP-1 through EP-8).

Per 40 CFR 60.332(b), stationary gas turbines with a heat input load equal to or greater than 107.2 gigajoules per hour (100 mmBtu/hr) have a NOx limit determined by the following equation:

$$STD = (0.0075)(14.4/Y) + F$$

Where:

STD = allowable NOx emissions (% by volume at 15 percent oxygen and on a dry basis)
 Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt-hour.

Given: Manufacturer's Rated Heat Rate = 10,770 Btu/kW-hr

Y = (10,770 Btu/kW-hr)(1.0548(kJ/Btu))(1kW/1000W) = 11.4 kJ/W-hr

F = NOx emission allowance for fuel bound nitrogen as defined in the following table:

Fuel-Bound Nitrogen	
% (by weight)	F (NOx percent by volume)
N ≤ 0.015	0
0.015 ≤ 0.1	0.04 x N
0.1 < N ≤ 0.25	0.004 + 0.0067 x (N-0.1)
N > 0.25	0.005

N = the nitrogen content of the fuel (% by weight)

F = 0 (The installation does not take credit for fuel-bound nitrogen and therefore F factor is 0)

$$STD = (0.0075) \times (14.4/11.4) + 0$$

STD = 0.0087% or 94.7 ppmv NOx at 15% oxygen

BACT limitation of 12 ppmv NOx < 94.7 ppmv NOx therefore meeting BACT NOx limitation satisfies Subpart GG.

40 CFR Part 60 Subpart Kb, *Standards of Performance for Volatile Organic Liquid Storage Vessels*
Subpart Kb applies to VOC storage vessels that were constructed after July 23, 1984, with storage capacity greater than 10,567 gallons. The installation has eight storage tanks that have a capacity of 2,600 gallons each therefore this subpart does not apply.

40 CFR Part 60 Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*
Subpart IIII does not apply to Emission Unit EU0090 Fire Pump because the fire pump was not manufactured after April 1, 2006 or Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

40 CFR Part 60 Subpart KKKK, *Standards of Performance for Stationary Combustion Turbines*
Subpart KKKK does not apply to Emission Units EU0010 through EU0080 Combustion Turbines because the turbines did not commence construction, modification or reconstruction after February 18, 2005.

Maximum Achievable Control Technology (MACT) Applicability

40 CFR Part 63, Subpart ZZZZ, *National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*

This subpart applies to the Emergency Diesel Fire Pump, EU0090.

40 CFR Part 63, Subpart YYYY, *National Emission Standard for Hazardous Air Pollutants for Stationary Combustion Turbines*

This subpart does not apply to the combustion turbines (EP-1 through EP-8) because they are not located at a major source of HAPs.

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 an add-on 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 CO₂ emissions in their Missouri Emissions Inventory Questionnaire; therefore, the installation’s CO₂ emissions were not included within this permit. The applicant is required to report the data directly to EPA. The public may obtain CO₂ emissions data for this installation by visiting <http://epa.gov/ghgreporting/ghgdata/reportingdatasets.html>.

Other Regulatory Determinations

10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*

The eight turbine generators (EP-1 through EP-8) are not subject to this rule because internal combustions engines are exempted under 10 CSR 10-6.220(1)(A).

10 CSR 10-6.261, *Control of Sulfur Dioxide Emissions*

The eight turbine generators (EP-1 through EP-8) are not subject to this rule because combustion equipment that uses exclusively pipeline grade natural gas are exempted under 10 CSR 10-6.261(1)(2). This rule does apply to EP-9, Emergency Fire Pump.

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

Although this rule was rescinded from the Missouri Code of State Regulations on November 30, 2015, it has not yet been removed from the State Implementation Plan (SIP), therefore it is still applicable to the facility and must remain in the operating permit until it is removed from the SIP.

The eight turbine generators (EP-1 through EP-8) are not subject to this rule because combustion equipment that uses exclusively pipeline grade natural gas are exempted under 10 CSR 10-6.261(1)(A).

This rule applies to EP-9 Emergency Fire Pump and it is included in the operating permit. The unit is in compliance as summarized in the following table:

Emission Unit	Emission Unit Description		SO ₂ Emission Factor (lb/mmBtu)	SO ₂ Emissions (ppmv)	SO ₂ limit (ppmv)
EP-1	Fire Pump Engine	Diesel Fuel Fuel Oil	0.29 AP42 Table 3.3-1	169	500

S = sulfur content of the fuel
 General Equation: ppmv SO₂ = SO₂ Emission Factor / F Factor / Conversion Factor

1. The SO₂ emission factor is the emission factor presented in the following table. It assumes that all of the sulfur in the fuel is converted to SO₂ emissions.
2. The F factor is the ratio of gas volume of products of combustion to the heat content of the fuel. For fuel oil the F factor is 10,332 wscf/mmBtu. For natural gas the F factor is 10,610 wscf/mmBtu. (40 CFR Part 60 Appendix A Method 19 Tbl 19-1).
3. The conversion factor is 1.660E-7 lb/scf per ppmv (40 CFR Part 60 Appendix A Method 19).

Sulfur emissions in the form of SO₃ converted from SO₂ are considered insignificant and it is highly unlikely that the limitations of 10 CSR 10-6.260(3)(B) will ever be exceeded.

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 for Ameren Missouri Audrain Energy Center (007-0053) was placed on public notice as of December 2, 2016 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: [2016http://www.dnr.mo.gov/env/apcp/PermitPublicNotices.htm](http://www.dnr.mo.gov/env/apcp/PermitPublicNotices.htm). On December 14, , the Air Pollution Control Program received comments from Mark Smith, EPA Region 7. The comments are addressed below in the order in which they appear within the letter.

Comment #1: Permit Condition 1 incorporates the nitrogen oxides (NO_x) best available control technologies (BACT) requirements from Construction Permit 052000-015, issued May 16, 2000. Permit Condition 5, incorporates the applicable requirements from 40 CFR Part 60, Subpart GG; which also limits the emission of NO_x. Both conditions require the permittee to install, calibrate, maintain and operate continuous emissions monitoring systems (CEMS) and record output of the systems for measuring NO_x emission rate in accordance with the requirements of 40 CFR 75.12. Additionally, both permit conditions allow the permittee to utilize the procedures for estimating NO_x emission rate in Appendix E to 40 CFR Part 75, in accordance with 40 CFR 75.12(d); in lieu of using the CEMS. According to the Statement of Basis, in a letter received by MDNR June 14, 2016, Ameren-Audrain proposed to develop an optional NO_x emission estimation protocol under 40 CFR 75.12(d). The Statement of Basis also states the permittee has made the decision to pursue a Part 75 Appendix E NO_x Emission Estimation Protocol for determining NO_x emissions, at each of the units. It appears, therefore to EPA, that Ameren-Audrain has selected the Appendix E to Part 75 – Optional NO_x Emission Estimation Protocol for Gas-Fired Peaking Units as their approach to determining their NO_x emission rates and therefore the monitoring requirements for Permit Condition 1 and Permit Condition 5 should include the requirements from Appendix E to Part 75 as applicable requirements. These applicable requirements appear to include, but not be limited to certification; initial performance testing; periodic NO_x emission rate testing; and procedures for determining hourly NO_x emission rate. With the timing of Ameren-Audrain implementation of the Appendix E methodology not clearly stated, MDNR may find it appropriate to include the Part 75, Appendix E requirements along with the NO_x-diluent CEMS requirement and provide “sunset” language as appropriate.

Response to Comment: Rather than include the requirements of Appendix E to Part 75 within Permit Conditions 1 and 5, an Appendix to the Statement of Basis was added that contains the requirements of the Optional NO_x Emissions Estimation Protocol.

Comment #2: Construction Permit 052000-015 required the permittee to perform stack tests on three (3) of the combustion turbines to verify the emission limitations for nitrogen oxides (NO_x) in Permit Condition 1; carbon monoxide (CO) in Permit Condition 2; PM₁₀ in Permit Condition 3; and formaldehyde in Permit Condition PW1. As stated in the Statement of Basis, the stack test results from this test performed on Combustion Turbines 1, 2 and 5 May 7 to 11, 2001, are still being used in this draft operating permit. EPA is concerned about the continuing adequacy of stack test data that is over fifteen years old and EPA strongly recommends MDNR use the authority granted in 10 CSR 10-6.065(6)(C)1.C.(I)(b) and require Ameren-Audrain to repeat the stack tests to verify continuing

compliance with the NO_x, CO, PM₁₀ and formaldehyde emission limitations. Based on the hours of operation of the eight combustion turbines, EPA recommends Ameren-Audrain test CT2, CT4 and CT6. Additional recurring stack test could be easily coordinated and completed at the same time as the repeat stack testing required by 40 CFR 75, Appendix E.

Response to Comment: Stack testing for CO, PM, NO_x and Formaldehyde was required by Construction Permit 052000-015 and was completed in May 2001. The test results for CO, PM and Formaldehyde show emissions very well below the emissions limitations so it is not believed that retesting will be beneficial for these units at this time. The test results for NO_x were up to 61% of the emission limitation so retesting could be useful if it were not for the fact that NO_x emissions are currently being monitored by a NO_x CEMS which provides continuous monitoring of NO_x emissions. If the permittee decides to utilize the optional NO_x emissions protocol under Part 75 Appendix E in lieu of using the NO_x CEMS, the permittee will be required to test NO_x emission rates at various heat input rate levels. It would be convenient to coordinate a recurring stack test to verify the emission rates for Construction Permit 052000-015 during this testing therefore the following requirement has been added to the operating permit under Permit Condition 1, Monitoring/Recordkeeping 5).

- 5) If a unit elects to utilize procedures for estimating the NO_x emission rate in Appendix E of Part 75, the permittee shall verify that the unit continues to meet the NO_x BACT emission limitation by repeating the performance test required by Construction Permit 052000-015. This performance test may be performed at the same time that the testing for Part 75 Appendix E.

Comment #3: At the top of page SB-4 in the Statement of Basis, it says “The permittee shall keep monthly records that are adequate to determine compliance with Emission Limitation No. 3. Attachment D, Individual Operational Schedule, or an equivalent form of the company’s own design is suitable for this purpose.” MDNR fails to identify the permit condition where Emission Limitation No. 3 is found. Additionally, Appendix D is the Title V: CAIR permit. Therefore, EPA recommends MDNR modify the quotation at the top of page SB-4 and the top of page SB-5 is a table showing potential to emit calculations for formaldehyde from combustion turbines 1 through 8 and the emergency fire pump. MDNR uses formaldehyde emission factors from EPA’s WebFIRE database in the emission calculation. The introduction to WebFIRE says the use of these emission factors as source-specific permit limits and/or as emission regulation compliance determinations is not recommended by EPA. The permittee has already developed a source-specific formaldehyde emission factor for three combustion turbines and EPA recommends Ameren-Audrain and MDNR use the site developed source-specific formaldehyde emission factor to determine the formaldehyde potential to emit.

Response to Comment: Special Condition 14 of Construction Permit 052000-015 is included in Permit Condition 4. It has actually been included as stating the following:

“The permittee shall keep monthly records that are adequate to determine compliance with Operational Limitations 2 and 3 (total installation and individual turbine hours of operation). Attachments A and B, Installation Operational Schedule and Generators Operational Schedule, or an equivalent form is suitable for this purpose. [Special Condition 13 and 14]”

The operational Limitations are those that are included within the permit condition. The statement of Basis has been updated to include the correct permit language, which correctly references Attachments A and B, rather than Attachment D which is the CAIR permit.

The potential to emit calculation for formaldehyde have been updated to use the highest resulting emission factor for formaldehyde which is from CT1 = 0.158 lb/hour.

Comment #4: Permit Condition 11 incorporates applicable requirements from 40 CFR Part 63, Subpart ZZZZ. If Ameren-Audrain is an area source of HAPs, then MDNR relies on EPA for compliance management. Therefore, all 40 CFR Part 63, Subpart ZZZZ compliance related reporting shall be submitted to the Missouri Air Compliance Coordinator at EPA Region 7 with copies to MDNR as necessary and the reporting requirement in Permit Condition 11 shall be modified to reflect this reporting scenario.

- 6) **Response to Comment:** The following requirement has been added to the Reporting Requirements for Permit Condition 11: “The permittee shall submit reports to EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219.”

Comment #5: The introductory discussion ribbon to Permit Condition 7 mistakenly references the facility as Ameren-Meramec, rather than Ameren –Audrain.

Response to Comment: This mistake has been corrected.

Comment #6: The draft operating permit for Ameren-Audrain includes an example notice of public availability to Affected States and Indian Tribes. EPA recognizes this addendum to be “boiler plate” notification to indicate that MDNR has made the required notification. However, the inclusion of November 25, 2014 and December 26, 2014 as the public notice dates is not appropriate for an operating permit placed on public notice December 2, 2016. EPA recommends MDNR provide actual dates on these notices.

Response to Comment: The Public Notice Email to Affected States and Indian Tribes was mistakenly included with the draft operating permit while it was placed on public notice. The email to the affected states included the correct dates but this notice will not be included with the final draft operating permit.

Response to EPA Comments

The draft Part 70 Operating Permit for Ameren Missouri Audrain Energy Center (007-0053) was sent to the Environmental Protection Agency for review on January 12, 2017. On January 20, the Air Pollution Control Program received one comment from Mark Smith, EPA Region 7. This comment is addressed below.

EPA Comment #1: EPA’s original Comment #1, submitted under cover dated December 14, 2016, recommended MDNR include the requirements associated with 40 CFR Part 75, Appendix E (NO_x Emission Estimation Protocol) within Permit Conditions 1 and 5, because Ameren Missouri Audrain Energy Center has chosen this approach for determination of their NO_x emission rates. MDNR’s response to Comment #1 states: “Rather than include the requirements of Appendix E to Part 75 within Permit Conditions 1 and 5, an Appendix to the Statement of Basis was added that contains the requirements of the Optional NO_x Emissions Estimation Protocol.” Section V: General Permit Requirements includes requirements associated with 10 CSR 10-6.065(6)(E)1C which says: “This permit is accompanied by a statement setting forth the legal and factual basis for the permit conditions (including reference to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.” Therefore, requirements the permittee is expected to meet, which are detailed in the Statement of Basis (which is not an actual part of the permit) are not enforceable. EPA requires that MDNR include all permittee requirements within the enforceable portion of the permit and that the requirements of 40 CFR Part 75, Appendix E must be included in the body of the Ameren Missouri Audrain Energy Center Part 70 operating permit.

Response to Comment: MDNR agrees that the requirements of 40 CFR Part 75, Appendix E would be better located within the actual body of the Ameren Missouri Audrain Energy Center Part 70 Operating Permit. These requirements have been removed as an Appendix to the Statement of Basis and relocated as Attachment E of the operating permit.



Eric R. Greitens, Governor • Carol S. Comer, Acting Director

DEPARTMENT OF NATURAL RESOURCES

dnr.mo.gov

JAN 31 2017

Mr. Ajay Arora
Ameren Missouri Audrain Energy Center
40897 Highway P
Vandalia, MO 63382

Re: Ameren Missouri Audrain Energy Center, 007-0053
Permit Number: OP2017-012

Dear Mr. Arora:

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

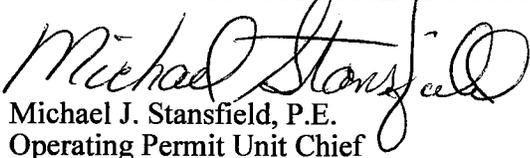
This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request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

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

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

Sincerely,

AIR POLLUTION CONTROL PROGRAM


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

MJS:jwj

Enclosures

c: PAMS File: 2015-10-042



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