



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: OP2016-011
Expiration Date: APR 28 2021
Installation ID: 069-0066
Project Number: 2012-09-073

Installation Name and Address

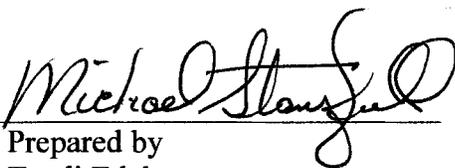
St. Francis Power Plant
Route 1, Box 441
Campbell, MO 63933
Dunklin County

Parent Company's Name and Address

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

Installation Description:

Associated Electric operates two natural gas-fired combined cycle combustion turbines in western Dunklin County, Missouri. The installation has a combined total gross megawatt capacity (MW) of 536 MW (projected output of 268 MW, nominal 250 MW per turbine). Both units are permitted to burn natural gas. Other miscellaneous sources include a heat recovery steam generator, one natural gas-fired auxiliary boiler system, two gas water bath heaters, four emergency diesel generators, and two cooling towers. St. Francis Power Plant is major for CO, NOx, and VOC.

for 
Prepared by
Tandi Edelman
Operating Permit Unit


Director of Designee
Department of Natural Resources

APR 28 2016

Effective Date

Table of Contents

I. INSTALLATION DESCRIPTION AND EQUIPMENT LISTING	5
INSTALLATION DESCRIPTION	5
EMISSION UNITS WITH LIMITATIONS	5
EMISSION UNITS WITHOUT SPECIFIC LIMITATIONS	6
II. PLANT WIDE EMISSION LIMITATIONS.....	7
PERMIT CONDITION Plantwide-001.....	7
10 CSR 10-6.060.....	7
Construction Permits Required	7
Construction Permit No. 0998-012, Issued August 19, 1998	7
III. EMISSION UNIT SPECIFIC EMISSION LIMITATIONS	8
EU0010 – COMBUSTION TURBINE UNIT #1	8
PERMIT CONDITION EU0010-001	8
10 CSR 10-6.060.....	8
Construction Permits Required	8
Construction Permit No. 0997-017A – BACT Requirement for PM ₁₀	8
PERMIT CONDITION EU0010-002	9
10 CSR 10-6.060.....	9
Construction Permits Required	9
Construction Permit No. 0997-017A – SO _x Emission Limit	9
PERMIT CONDITION EU0010-003	10
10 CSR 10-6.060.....	10
Construction Permits Required	10
Construction Permit No. 0997-017A – BACT Requirement for NO _x	10
Amendment to Permit No 0997-017A Dated October 29, 1999	10
PERMIT CONDITION EU0010-004	12
10 CSR 10-6.060.....	12
Construction Permits Required	12
Construction Permit No. 0997-017A – BACT Requirement for VOC.....	12
PERMIT CONDITION EU0010-005	13
10 CSR 10-6.060.....	13
Construction Permits Required	13
Construction Permit No. 0997-017A – BACT Requirement for CO	13
PERMIT CONDITION EU0010-006	14
10 CSR 10-6.070.....	14
New Source Performance Regulations.....	14
40 CFR Part 60 Subpart GG	14
Standards of Performance for Stationary Gas Turbines – Nitrogen Oxides (NO _x) EPA Region VII Approval of Custom Fuel Sampling Schedules, Letter Dated January 07, 1998	14
PERMIT CONDITION EU0010-007	14
10 CSR 10-6.070.....	14
New Source Performance Regulations.....	14
40 CFR Part 60 Subpart GG	14
Standards of Performance for Stationary Gas Turbines – Sulfur Dioxide (SO ₂) EPA Region VII Approval of Custom Fuel Sampling Schedules, Letter Dated January 07, 1998	14
PERMIT CONDITION EU0010-008	15
10 CSR 10-6.270 Acid Rain Source Permits Required	15
PERMIT CONDITION EU0010– 009.....	16
10 CSR 10-6.362 Clean Air Interstate Rule Annual NO _x Trading Program.....	16
10 CSR 10-6.364 Clean Air Interstate Rule Seasonal NO _x Trading Program	16
10 CSR 10-6.366 Clean Air Interstate Rule SO _x Trading Program.....	16
EU0020 – COMBUSTION TURBINE UNIT #2	16
PERMIT CONDITION EU0020-001	16

10 CSR 10-6.060.....	16
Construction Permits Required	16
Construction Permit No. 0799-012 – BACT Requirement for PM ₁₀	16
PERMIT CONDITION EU0020-002	17
10 CSR 10-6.060.....	17
Construction Permits Required	17
Construction Permit No. 0799-012 – BACT Requirement for VOC	17
PERMIT CONDITION EU0020-003	18
10 CSR 10-6.060.....	18
Construction Permits Required	18
Construction Permit No. 0799-012 – BACT Requirement for NO _x	18
Amendment to Permit No. 0799-012 Dated October 29, 1999	18
PERMIT CONDITION EU0020-004	20
10 CSR 10-6.060.....	20
Construction Permits Required	20
Construction Permit No. 0799-012 – BACT Requirement for CO	20
PERMIT CONDITION EU0020-005	21
10 CSR 10-6.070.....	21
New Source Performance Regulations.....	21
40 CFR Part 60 Subpart GG	21
Standards of Performance for Stationary Gas Turbines – Nitrogen Oxides (NO _x)	21
EPA Region VII Approval of Custom Fuel Sampling Schedules, Letter Dated January 7, 1999	21
PERMIT CONDITION EU0020-006	22
10 CSR 10-6.070.....	22
New Source Performance Regulations.....	22
40 CFR Part 60 Subpart GG	22
Standards of Performance for Stationary Gas Turbines – Sulfur Dioxide (SO ₂).....	22
EPA Region VII Approval of Custom Fuel Sampling Schedules, Letter Dated January 7, 1999	22
PERMIT CONDITION EU0020-007	23
10 CSR 10-6.270 Acid Rain Source Permits Required	23
PERMIT CONDITION EU0020– 008.....	24
10 CSR 10-6.362 Clean Air Interstate Rule Annual NO _x Trading Program.....	24
10 CSR 10-6.364 Clean Air Interstate Rule Seasonal NO _x Trading Program	24
10 CSR 10-6.366 Clean Air Interstate Rule SO _x Trading Program.....	24
EU0030 – AUXILIARY BOILER	24
PERMIT CONDITION EU0030-001	24
10 CSR 10-6.060.....	24
Construction Permits Required	24
Construction Permit No. 0998-012, Issued August 19, 1998.....	24
PERMIT CONDITION EU0030-002	25
10 CSR 10-6.070.....	25
New Source Performance Regulations.....	25
40 CFR Part 60 Subpart Dc.....	25
Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units- Standard for SO _x	25
EU0040 THROUGH EU0060– DIESEL GENERATORS	26
PERMIT CONDITION (EU0040 through EU0060)-001	26
10 CSR 10-6.060.....	26
Construction Permits Required	26
Construction Permit No. 042000-014, Issued April 5, 2000	26
Permit Condition (EU0040 through EU0060)-002	27
EU0070 – DIESEL FIRE PUMP.....	30
Permit Condition EU0070 -001	30
PERMIT CONDITION (EU0040 through EU0070)-001	32
10 CSR 10-6.260.....	32
Restriction of Emission of Sulfur Compounds.....	32
PERMIT CONDITION (EU0040 through EU0070)-002	33
10 CSR 10-6.261.....	33
Control of Sulfur Dioxide Emissions	33
EU0100 – Black Start Diesel Generator	34

IV. CORE PERMIT REQUIREMENTS	37
V. GENERAL PERMIT REQUIREMENTS	42
VI. ATTACHMENTS	48
ATTACHMENT A	49
Rolling 12-Monthly SO _x Emission Tracking Record.....	49
ATTACHMENT B	50
NO _x EMISSION SUMMARY REPORT FOR UNIT 2	50
ATTACHMENT C	54
Rolling 12-Monthly NO _x Emission Tracking Record Diesel Generators (EU0040, EU0050 and EU0060)	54
ATTACHMENT D	55
TITLE IV: ACID RAIN PERMIT	55
ATTACHMENT E	61
TITLE V: CLEAN AIR INTERSTATE RULE (CAIR) PERMIT.....	61
ATTACHMENT F.....	66
EPA Region VII Approval of Custom Fuel Sampling Schedules	66

I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Associated Electric operates two natural gas-fired combined cycle combustion turbines in western Dunklin County, Missouri. The installation has a combined total gross megawatt capacity of 536 MW (projected output of 268 MW, nominal 250 MW per turbine). Both units are permitted to burn natural gas. Other miscellaneous sources include a heat recovery steam generator, one natural gas-fired auxiliary boiler system, two gas water bath heaters, four 19.25 MMBtu/hr emergency diesel generators, and two cooling towers. This facility is on the list of named installations, therefore fugitive emissions are included in potential-to-emit calculations.

Reported Air Pollutant Emissions, tons per year					
Pollutants	2014	2013	2012	2011	2010
Particulate Matter ≤ Ten Microns (PM ₁₀)	5.72	9.25	16.6	11.87	11.69
Particulate Matter ≤ 2.5 Microns (PM _{2.5})	2.13	3.34	5.61	0.26	0.29
Sulfur Oxides (SO _x)	0.83	1.40	2.72	1.83	1.83
Nitrogen Oxides (NO _x)	22.07	36.04	69.56	46.75	51.43
Volatile Organic Compounds(VOC)	2.84	4.40	8.37	5.54	5.42
Carbon Monoxide (CO)	18.34	26.55	44.52	32.04	33.63
Hazardous Air Pollutants (HAPs)	0.93	1.59	3.13	2.06	2.10
Ammonia (NH ₃)	11.62	19.95	39.34	26.25	26.59

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>
EU0010	Combustion Turbine Unit #1
EU0020	Combustion Turbine Unit #2
EU0030	Auxiliary Boiler
EU0040	Diesel Generator #1
EU0050	Diesel Generator #2
EU0060	Diesel Generator #3
EU0070	Diesel Fire Pump
EU0100	Black Start Diesel Generator

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. These emissions sources are subject to the plant wide emission limitations in Section II of this permit.

Description of Emission Source

Two Cooling Towers (4 cell forced draft) – Unit 1 and Unit 2

Two 1MMBtu/hr (each) Cyclone Water Bath Heaters Fueled by Natural Gas (300 gal/each)

Two 10,000 Gallon Aqueous Ammonia Storage Tanks

Two 5,000-Gallon Lubricating Oil Storage Tanks

Two 6,000-Gallon Sulfuric Acid Tanks

Miscellaneous Hydraulic Equipment (both units)

Two 30 Gallons Per Day of Sodium Hypochlorite for Cooling Tower Treatment/Chemical Storage (6,000 gal/each)

Three 1000-Gallon No. 2 Diesel Fuel Oil Storage Tanks

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 or Emission Units without Specific Limitations.

PERMIT CONDITION Plantwide-001

10 CSR 10-6.060

Construction Permits Required

Construction Permit No. 0998-012, Issued August 19, 1998

Emission Limitation:

The permittee shall emit into the atmosphere from the entire installation less than 40 tons of SO_x during any 12-month consecutive period when burning natural gas. SO_x emissions from this operation shall be calculated based on fuel sulfur analysis and fuel flow. [Special Condition No. 1]

Emission Units making up the installation at the time of this construction permit issuance include the following:

- EU0010 – Combustion Turbine #1
- EU0020 – Combustion Turbine #2
- EU0030 – Auxiliary Boiler
- Natural Gas Water Bath Heaters

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of emissions of SO_x emitted into the atmosphere from the entire installation. [Special Condition No. 4]
- 2) The permittee shall calculate the monthly sum of SO_x emissions (in tons) from the entire installation. Attachment A, “Monthly SO_x Emission Tracking Record or an equivalent form is suitable from this purpose. Equation 1 (see Attachment A) shall be utilized to calculate monthly emissions and to record annual emissions of SO_x (in tons) from the entire installation. [Special Condition No. 4]
- 3) The permittee shall keep these records on-site for five years and shall make the records immediately available to the Missouri Department of Natural Resources’ personnel upon request. [Special Condition No. 4]

Reporting:

- 1) The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
- 2) The permittee shall report to the Air Pollution Control Programs’ Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 15 days after the end of the month if records indicate that the installation exceeded the 40-ton SO_x limit. [Special Condition No. 5]

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.

EU0010 – Combustion Turbine Unit #1			
Emission Unit	Description	Manufacturer/Model #	2013 EIQ Reference #
EU0010	Combined-Cycle Gas Turbine Unit #1; 268 Megawatt (MW) Unit;– Natural Gas (1673 MMBtu/hr), constructed 1996	Siemens/V84.3A	EU0010

PERMIT CONDITION EU0010-001
 10 CSR 10-6.060
 Construction Permits Required
 Construction Permit No. 0997-017A – BACT Requirement for PM₁₀

Emission Limitation:

The permittee shall not discharge into the atmosphere nor allow the emission rate of particulate matter less than ten microns (PM₁₀) from the operation of the combined-cycle gas turbine to exceed 0.01 lb/MMBtu when burning natural gas. Good combustion practices shall be utilized not to exceed the 0.01 lb/MMBtu PM₁₀ emission limit. [Special Condition No. 1]

Operation Limitation:

- 1) The permittee shall allow no fuels other than natural gas to be combusted in the combined-cycle gas turbines at any time. [Special Condition No. 7]
- 2) During any startup/shutdown evolution(s), the permittee will operate in the diffusion mode of operation no longer than four-hours. The PM₁₀ emission limitation shall be exempted during this period of time. [Special Condition No. 22]
- 3) During equipment breakdown or malfunction, the permittee shall immediately take practical steps to modify operations to reduce the emissions of air contaminants. The director of the Air Pollution Control Program may require feasible and practical modifications in the operation to reduce emissions of all air contaminants. [Special Condition No. 23]
- 4) The permittee is prohibited sustained operation of the combined-cycle gas turbine at loads less than 60% when firing natural gas except during unit startup and shutdown. [Special Condition No. 24]

Recordkeeping:

The permittee shall maintain records of the initial performance test required by the Construction Permit #0997-017A that demonstrate compliance with the emission limitation.

Reporting:

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

- 2) The permittee shall report promptly any deviations from permit requirements, including those attributable to upsets, no later than 15 days after the end of the month to the Air Pollution Control Programs' Compliance/Enforcement Section. This report shall include the cause of such deviations and any corrective actions or preventive measures taken. Corrective actions may include a requirement for additional stack testing or more frequent monitoring, or could trigger implementation of a corrective action plan. [Special Condition No. 11]

PERMIT CONDITION EU0010-002

10 CSR 10-6.060

Construction Permits Required

Construction Permit No. 0997-017A – SO_x Emission Limit

Emission Limitation:

The permittee shall not discharge into the atmosphere more than 40 tons of SO_x during any 12-month consecutive period when burning natural gas. The emissions of SO_x from the operation of this turbine are set by limiting the emissions of SO_x to the atmosphere below 40 tons per 12-month rolling average. [Special Condition No. 2]

Operation Limitation:

- 1) The permittee shall allow no fuels other than natural gas to be combusted in the combined-cycle gas turbines at any time. [Special Condition No. 7]
- 2) During any startup/shutdown evolution(s), the permittee will operate in the diffusion mode of operation no longer than four-hours. The SO_x emission limitation shall be exempted during this period of time. [Special Condition No. 22]
- 3) During equipment breakdown or malfunction, the permittee shall immediately take practical steps to modify operations to reduce the emissions of air contaminants. The director of the Air Pollution Control Program may require feasible and practical modifications in the operation to reduce emissions of all air contaminants. [Special Condition No. 23]
- 4) The permittee is prohibited sustained operation of the combined-cycle gas turbine at loads less than 60% except during unit startup and shutdown. [Special Condition No. 24]

Monitoring:

The permittee shall calculate Sulfur dioxide (SO₂) emissions from this operation based on fuel sulfur analysis and fuel flow. The sulfur content of the natural gas shall be determined through vendor certification or other method after consultation with APCP. The permittee is using GPA Standard 2377, Test for Hydrogen Sulfide (H₂S) in Natural Gas using Length of Stain Tubes on a semi-annual basis. [Special Condition No. 2]

Recordkeeping:

The permittee shall maintain an accurate record of the fuel consumption records and statements and emissions of SO_x emitted into the atmosphere from this installation. The permittee shall calculate the monthly sum of SO_x emissions (in tons) for natural gas from this installation. Attachment A, *Monthly SO_x Emissions Tracking Record* is suitable for this purpose. Equation 1 (see Attachment A) shall be utilized to calculate monthly emissions and to record annual emissions of SO_x (in tons) from this unit (EU0010) and the auxiliary boiler (EU0030). The use of Attachment A will begin after completion of the compliance stack tests with the 12-month rolling average. These records shall be kept on-site and shall be made immediately available to MDNR personnel upon request. [Special Condition No. 8]

Reporting:

- 1) The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
- 2) The permittee shall report to the Air Pollution Control Program Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 15 days after the end of the month, if records indicate that the source exceeded the SO_x limitation (40 tons of SO_x during any 12-month rolling average), after the commencement of operation. [Special Condition No. 10]
- 3) The permittee shall report promptly any deviations from permit requirements, including those attributable to upsets no later than 15 (fifteen) days after the end of the month records indicate that the installation deviated from permit requirements or upsets to the APCP Compliance/Enforcement Section. This report shall include the cause of such deviations and any corrective actions or preventive measures taken. Corrective actions may include a requirement for additional stack testing or more frequent monitoring, or could trigger implementation of a corrective action plan. [Special Condition No. 11]

PERMIT CONDITION EU0010-003

10 CSR 10-6.060

Construction Permits Required

Construction Permit No. 0997-017A – BACT Requirement for NO_x

Amendment to Permit No 0997-017A Dated October 29, 1999

Emission Limitation:

The permittee shall comply with the following BACT limit:

- 1) The emissions of the nitrogen oxides from the operation of the combined cycle gas turbine at turbine loads above 60% (to assure operations in the pre-mix mode) shall not exceed 4 parts per million (ppm) by volume, based on 30-day rolling average, corrected to 15 percent oxygen (O₂) or an equivalent percent carbon dioxide (CO₂) when burning natural gas. This limit shall be achieved by using selective catalytic reduction (SCR) along with the dry low-NO_x burners. [Special Condition No. 4]
- 2) Exceptions: the permittee is exempt from (1) above when ice fog is deemed a traffic hazard by the owner or operator of the gas turbine. “Ice Fog” is defined as an atmospheric suspension of highly reflective ice crystals. [Special Condition No. 15]

Operation Limitation:

- 1) The permittee shall allow no fuels other than natural gas to be combusted in the combined-cycle gas turbines at any time. [Special Condition No. 7]
- 2) During any startup/shutdown evolution(s), the permittee will operate in the diffusion mode of operation no longer than a combined total of four-hours for the start-up/shutdown evolution(s). The NO_x emission limitation shall be exempted during this period of time. NO_x emission data shall be collected by the continuous emission monitoring system (CEMS) in accordance with 40 CFR Part 75. [Special Condition No. 22]
- 3) During equipment breakdown or malfunction, the permittee shall immediately take practical steps to modify operations to reduce the emissions of air contaminants. The director of the Air Pollution Control Program may require feasible and practical modifications in the operation to reduce emissions of all air contaminants. [Special Condition No. 23]

- 4) The permittee is prohibited sustained operation of the combined-cycle gas turbine at loads less than 60% except during unit startup and shutdown. [Special Condition No. 24]

Monitoring:

- 1) The permittee shall install and operate a CEMS in accordance with 40 CFR Part 75 requirements to monitor and record the emissions rate (for NO_x) and the fuel consumption in the turbine. [Special Condition No. 12]
- 2) The permittee shall conduct on the frequency required in Part 75, Appendix B, a Relative Accuracy Test on the continuous emission monitoring system, pursuant to 40 CFR Part 75, in 40 CFR Part 60, Appendix A, using appropriate Reference Methods for NO_x, or equivalent Environmental Protection Agency (EPA) approved method. (40 CFR Part 75 Appendix B)

Recordkeeping:

- 1) The permittee shall record the corrected NO_x concentration and keep fuel consumption records and statements. The notification and recordkeeping requirements of 40 CFR 60.7(c) shall be adhered to as they pertain to 40 CFR 60.334(c)(1), except the NO_x emission limitation should be replaced with 4 ppm by volume when operating on natural gas. Briefly, this requires that quarterly reports be submitted to the director of the Air Pollution Control Program, within 30- days after the end of each quarter, detailing any exceedances of applicable emission limits. [Special Condition No. 13]
- 2) The permittee shall use Attachment B or an equivalent recordkeeping form to record any exceedances or monitor downtime events as indicated by the continuous emission monitoring system.
- 3) The permittee shall maintain records on-site for the most recent 60 months of all records required by this permit and shall immediately make such records available to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

- 1) The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
- 2) The permittee shall report promptly any deviations from permit requirements, including those attributable to upsets no later than 15 days after the end of the month to the Air Pollution Control Programs' Compliance/Enforcement Section. This report shall include the cause of such deviations and any corrective actions or preventive measures taken. Corrective actions may include a requirement for additional stack testing or more frequent monitoring, or could trigger implementation of a corrective action plan. [Special Condition No. 11]
- 3) The permittee shall adhere to the notification and recordkeeping requirements of 40 CFR 60.7(c) as they pertain to 40 CFR 60.334(c). Briefly, this requires that quarterly reports be submitted to the director of the APCP, within 30-days after the end of each quarter, detailing any exceedance of applicable emission limits. [Special Condition # 13]
- 4) The permittee shall report quarterly when the monitoring system is down due to inoperative periods, repairs, malfunctions or monitor adjustments. The report shall give a reason as to why the monitor was down, the duration of the downtime event, and provide the percent of the total operating period the monitor experienced downtime. The report shall distinguish between those downtime events that were due to Quality Assurance (QA) activities and those events that occurred for other reasons. However, if no excess emissions occurred within the quarter and the continuous NO_x monitoring system has not been inoperative, repaired, or adjusted, that information shall be included in the

report. All quarterly reports shall be postmarked by the thirtieth day following the end of each calendar quarter. [Special Condition #13]

PERMIT CONDITION EU0010-004

10 CSR 10-6.060

Construction Permits Required

Construction Permit No. 0997-017A – BACT Requirement for VOC

Emission Limitation:

- 1) The permittee shall not discharge into the atmosphere nor allow the emission rate of VOC from the operation of the combined-cycle gas turbine to exceed 0.01 lb/MMBTU when firing natural gas at turbine loads above 60%. [Special Condition #3a]
- 2) Good combustion practices shall be utilized not to exceed the above VOCs emissions limit. [Special Condition No. 3b]

Operation Limitation:

- 1) The permittee shall allow no fuels other than natural gas shall be combusted in the combined-cycle gas turbines at any time. [Special Condition No. 7]
- 2) During any startup/shutdown evolution(s), the permittee will operate in the diffusion mode of operation no longer than four-hours. The VOC emission limitation shall be exempted during this period of time. [Special Condition No. 22]
- 3) During equipment breakdown or malfunction, the permittee shall immediately take practical steps to modify operations to reduce the emissions of air contaminants. The director of the Air Pollution Control Program may require feasible and practical modifications in the operation to reduce emissions of all air contaminants. [Special Condition No. 23]
- 4) The permittee is prohibited sustained operation of the combined-cycle gas turbine at loads less than 60% except during unit startup and shutdown. [Special Condition No. 24]

Recordkeeping:

The permittee shall maintain records of the initial performance test required by the Construction Permit #0997-017A that demonstrate compliance with the emission limitation.

Reporting:

- 1) The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
- 2) The permittee shall report to the Air Pollution Control Programs' Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 15 days after the end of the month, in which performance testing has been performed and indicates non-compliance with the VOC emission limitation. [Special Condition #11]
- 3) The permittee shall report promptly any deviations from permit requirements, including those attributable to upsets no later than 15 days after the end of the month is records indicate that the installation exceeded the VOC limit to the Air Pollution Control Programs' Enforcement Section. This report shall include the cause of such deviations and any corrective actions or preventive measures taken. Corrective actions may include a requirement for additional stack testing or more frequent monitoring, or could trigger implementation of a corrective action plan. [Special Condition No. 11]

PERMIT CONDITION EU0010-005

10 CSR 10-6.060

Construction Permits Required

Construction Permit No. 0997-017A – BACT Requirement for CO

Emission Limitation:

The permittee shall not discharge into the atmosphere nor allow the emission rate of CO from the operation of the combined-cycle gas turbine at turbine loads above 60% to exceed 10 ppm by volume when firing natural gas. Good combustion practices shall be utilized not to exceed the 10-ppm CO emissions limit. [Special Condition No. 6]

Operation Limitation:

- 1) The permittee shall allow no fuels other than natural gas shall be combusted in the combined-cycle gas turbines at any time. [Special Condition No. 7]
- 2) During any startup/shutdown evolution(s), the permittee will operate in the diffusion mode of operation no longer than four-hours. The CO emission limitation shall be exempted during this period of time. [Special Condition No. 22]
- 3) During equipment breakdown or malfunction, the permittee shall immediately take practical steps to modify operations to reduce the emissions of air contaminants. The director of the Air Pollution Control Program may require feasible and practical modifications in the operation to reduce emissions of all air contaminants. [Special Condition No. 23]
- 4) The permittee is prohibited sustained operation of the combined-cycle gas turbine at loads less than 60% except during unit startup and shutdown. [Special Condition No. 24]

Recordkeeping:

The permittee shall maintain records of the initial performance test required by the Construction Permit #0997-017A that demonstrate compliance with the emission limitation.

Reporting:

- 1) The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
- 2) The permittee shall report to the Air Pollution Control Programs' Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 15 days after the end of the month, in which performance testing has been performed and indicates non-compliance with the CO emission limitation. [Special Condition #11]
- 3) The permittee shall report promptly any deviations from permit requirements, including those attributable to upsets no later than 15 days after the end of the month if records indicate that the installation exceeded the CO limit to the Air Pollution Control Programs' Compliance/Enforcement Section. This report shall include the cause of such deviations and any corrective actions or preventive measures taken. Corrective actions may include a requirement for additional stack testing or more frequent monitoring, or could trigger implementation of a corrective action plan. [Special Condition No. 11]

PERMIT CONDITION EU0010-006

10 CSR 10-6.070

New Source Performance Regulations

40 CFR Part 60 Subpart GG

Standards of Performance for Stationary Gas Turbines – Nitrogen Oxides (NO_x)

EPA Region VII Approval of Custom Fuel Sampling Schedules, Letter Dated January 07, 1998

Emission Limitation:

Standard for Nitrogen Oxides:

NOTE: This combustion turbine (EU0010) is subject to the requirements of §60.333(a)(1) of 40 CFR Part 60 Subpart GG. Since the NO_x emission standards of Subpart GG (87 ppmv when burning natural gas, at 15% O₂ dry basis as determined by §60.332(a)(1)) are less stringent than the NO_x emission limits of Permit No. 0997-017A (Permit Condition EU0010-003), the NSPS §60.332(a)(1) standards are not listed as permit conditions to this unit. Compliance with the NO_x BACT limits in Permit Condition EU0010-003 will assure compliance with the §60.332(a)(1) standards as demonstrated in the Statement of Basis.

Monitoring:

The permittee shall comply with the EPA Region VII's approved custom fuel sulfur and/or nitrogen content monitoring schedule and associated provisions. [40 CFR 60.334(b)(2)]

- a) Since the unit only fires natural gas the custom fuel schedule is valid at all times of operation.
- b) Attachment F is the Custom Fuel Sampling Schedule

PERMIT CONDITION EU0010-007

10 CSR 10-6.070

New Source Performance Regulations

40 CFR Part 60 Subpart GG

Standards of Performance for Stationary Gas Turbines – Sulfur Dioxide (SO₂)

EPA Region VII Approval of Custom Fuel Sampling Schedules, Letter Dated January 07, 1998

Emission Limitation:

Standard for Sulfur Dioxide:

- a) The permittee shall not cause to be discharged into the atmosphere from this gas turbine any gases which contain sulfur dioxide in excess of 0.015% by volume at 15% oxygen and on a dry basis. [40 CFR 60.333(a)];

Monitoring:

- 1) The permittee shall comply with the EPA Region VII's approved custom fuel sulfur and/or nitrogen content monitoring schedule and associated provisions. [40 CFR 60.334(b)(2)]
 - a) Since the unit only fires natural gas the custom fuel schedule is valid at all times of operation.
 - b) Attachment F is the Custom Fuel Sampling Schedule.
- 2) The permittee shall determine compliance with the sulfur content standard in 40 CFR 60.333(b) as follows: [40 CFR 60.335(d)], and as necessary
 - a) ASTM D6667-01 shall be used to determine the sulfur content of gaseous fuels (incorporated by reference-see 40 CFR 60.17).
 - b) The applicable ranges of some American Society for Testing and Materials (ASTM) methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of

samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the director.

- c) Analysis for fuel sulfur content of the natural gas shall be conducted using an approved alternative method. The approved alternative method shall mean the following: The Gas Processors Association's (GPA's) Standard 2377 (Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes), as currently in effect and as may be revised from time-to-time by the GPA. [[Custom Schedule Condition 1a.](#)]

Recordkeeping

- 1) The permittee shall maintain records of reports required under §60.7(c) and §60.334(c)(2), or pursuant to an approved custom fuel schedule.
- 2) The permittee shall maintain records on-site for the most recent 60 months of all records required by this permit and shall immediately make such records available to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

- 1) For the purposes of reports under §60.7(c), periods of excess emissions that shall be reported by the permittee are defined as follows: [[§60.334\(c\)](#)]
 - a) *Sulfur dioxide*. Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8%. [[40 CFR 60.334\(c\)\(2\)](#)]
Compliance with the approved custom fuel schedule is said to demonstrate compliance with this applicable standard.
- 2) The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
- 3) The permittee shall report to the Air Pollution Control Programs' Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 15 days after the custom fuel schedule recordkeeping indicates an exceedance with the applicable standard pursuant to the regulation.

PERMIT CONDITION EU0010-008

10 CSR 10-6.270 Acid Rain Source Permits Required

Emission Limitation:

The permittee shall obtain an Acid Rain Source Permit for the combustion turbine generator EU0010 pursuant to Title IV of the Clean Air Act.

An acid rain permit Missouri Department of Natural Resources project 2014-11-036, ORIS Code 7604 is being issued to the permittee in conjunction with this Title V permit. (See Attachment D) SO₂ limitations are referenced in this Title IV: Phase II Acid Rain Permit for the installation.

Monitoring/Recordkeeping:

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:

Annual Compliance Certification.

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

<p>PERMIT CONDITION EU0010– 009 10 CSR 10-6.362 Clean Air Interstate Rule Annual NOx Trading Program 10 CSR 10-6.364 Clean Air Interstate Rule Seasonal NOx Trading Program 10 CSR 10-6.366 Clean Air Interstate Rule SOx Trading Program</p>

Emission Limitation:

The permittee shall obtain a Clean Air Interstate Rule (CAIR) Source Permit for the combustion turbine generator EU0010.

A CAIR Permit (Missouri Department of Natural Resources project 2012-09-074, ORIS Code 7604) is being issued to the permittee in conjunction with this Title V permit. (See Attachment E)

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

EU0020 – Combustion Turbine Unit #2			
Emission Unit	Description	Manufacturer/Model #	2013 EIQ Reference #
EU0020	Combined-Cycle Gas Turbine Unit #2; 268 Megawatt (MW) Unit; Fuel – Natural Gas (1673 MMBtu/hr), constructed 1999.	Siemens/V84.3A	EU0020

<p>PERMIT CONDITION EU0020-001 10 CSR 10-6.060 Construction Permits Required Construction Permit No. 0799-012 – BACT Requirement for PM₁₀</p>
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Emission Limitation:

The permittee shall not discharge into the atmosphere nor allow the emission rate of particulate matter less than ten microns (PM₁₀) from the operation of the combined-cycle gas turbine Unit #2 to exceed 0.003 lb/MMBtu when burning natural gas. Good combustion practices shall be utilized not to exceed the 0.003 lb/MMBtu PM₁₀ emission limit. [Special Condition No.1]

Operation Limitation:

- 1) The permittee shall allow no fuels other than pipeline grade natural gas to be combusted in the combined-cycle gas turbine Unit #2 at any time. [Special Condition No. 5]
- 2) During any startup/shutdown evolution(s), the permittee will operate in the diffusion mode of operation no longer than four-hours. The PM₁₀ emission limitation shall be exempted during this period of time. [Special Condition No. 18]
- 3) During equipment breakdown or malfunction, the permittee shall immediately take practical steps to modify operations to reduce the emissions of air contaminants. The director of the Air Pollution Control Program may require feasible and practical modifications in the operation to reduce emissions of all air contaminants. [Special Condition No. 19]
- 4) The permittee is prohibited to sustain operation of the combined-cycle gas turbine at loads less than 60% when firing natural gas except during unit startup and shutdown. [Special Condition No. 20]

Monitoring/Recordkeeping:

- 1) The permittee shall maintain records of the initial performance test required by the Construction Permit #0799-012 that demonstrate compliance with the emission limitation.
- 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 the turbines are operated at less than 60% load. [Special Condition No. 21]

Reporting:

- 1) The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
- 2) The permittee shall report to the Air Pollution Control Programs' Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 15 days after the end of the month, in which performance testing has been performed and indicates non-compliance with the PM₁₀ emission limitation. [Special Condition No. 7]
- 3) The permittee shall report promptly to the Air Pollution Control Program's Compliance/Enforcement Section any deviations from permit requirements, including those attributable to upsets, within 15 days of said deviation. This report shall include the cause of such deviations and any corrective actions or preventive measures taken. Corrective actions may include a requirement for additional stack testing or more frequent monitoring, or could trigger implementation of a corrective action plan. [Special Condition No. 8]

PERMIT CONDITION EU0020-002

10 CSR 10-6.060

Construction Permits Required

Construction Permit No. 0799-012 – BACT Requirement for VOC

Emission Limitation:

The permittee shall not discharge into the atmosphere nor allow the emission rate of VOCs from the operation of the combined-cycle gas turbine Unit #2 to exceed 0.01 lb/MMBTU when firing natural gas at turbine loads above 60% to assure operation in the pre-mix mode. Good combustion practices shall be utilized not to exceed the above VOCs emissions limit. [Special Condition No. 2]

Operation Limitation:

- 1) The permittee shall allow no fuels other than natural gas to be combusted in the combined-cycle gas turbine Unit #2 at any time. [Special Condition No. 5]
- 2) During any startup/shutdown evolution(s), the permittee will operate in the diffusion mode of operation no longer than four-hours. The VOC emission limitation shall be exempted during this period of time. [Special Condition NO. 18]
- 3) During equipment breakdown or malfunction, the permittee shall immediately take practical steps to modify operations to reduce the emissions of air contaminants. The director of the Air Pollution Control Program may require feasible and practical modifications in the operation to reduce emissions of all air contaminants. [Special Condition No. 19]
- 4) The permittee is prohibited from operating the combined-cycle gas turbine at a sustained load of less than 60% when firing natural gas except during unit startup and shutdown. [Special Condition No. 20]

Monitoring/Recordkeeping:

- 1) The permittee shall maintain records of the initial performance test required by the Construction Permit #0799-012 that demonstrate compliance with the emission limitation.
- 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% load. [Special Condition No. 21]

Reporting:

- 1) The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
- 2) The permittee shall report to the Air Pollution Control Programs' Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 15 days after the end of the month, in which performance testing has been performed and indicates non-compliance with the VOC emission limitation. [Special Condition No. 7]
- 3) The permittee shall report promptly any deviations from permit requirements, including those attributable to upsets no later than 15 days after the end of the month is records indicate that the installation exceeded the VOC limit to the Air Pollution Control Programs' Compliance/Enforcement Section. This report shall include the cause of such deviations and any corrective actions or preventive measures taken. Corrective actions may include a requirement for additional stack testing or more frequent monitoring, or could trigger implementation of a corrective action plan. [Special Condition No. 8]

PERMIT CONDITION EU0020-003

10 CSR 10-6.060

Construction Permits Required

Construction Permit No. 0799-012 – BACT Requirement for NO_x

Amendment to Permit No. 0799-012 Dated October 29, 1999

Emission Limitation:

The permittee shall comply with the following BACT limit:

- 1) Emissions of NO_x from the operation of the combined-cycle gas turbine Unit #2 at turbine loads above 60% shall not exceed 4.5 parts per million (ppm) by volume, based on three-hour rolling

average, corrected to 15% O₂ or an equivalent percent CO₂ when burning natural gas. This limit shall be achieved by using SCR along with the dry low-NO_x burners. [Special Condition No. 3]

- 2) Exceptions: The permittee is exempt from emission limitation 1 when ice fog is deemed a traffic hazard by the owner or operator of the gas turbine. "Ice Fog" is defined as an atmospheric suspension of highly reflective ice crystals. [Special Condition No. 11]

Operation Limitation:

- 1) The permittee shall allow no fuels other than natural gas shall be combusted in the combined-cycle gas turbine Unit #2 at any time. [Special Condition No. 5]
- 2) During any startup/shutdown evolution(s), the permittee will operate in the diffusion mode of operation no longer than a combined total of four-hours for the startup/shutdown evolution(s). The NO_x emission limitation shall be exempted during this period of time. NO_x emission data shall be collected by the CEMS in accordance with 40 CFR Part 75. [Special Condition No. 18]
- 3) During equipment breakdown or malfunction, the permittee shall immediately take practical steps to modify operations to reduce the emissions of air contaminants. The director of the Air Pollution Control Program may require feasible and practical modifications in the operation to reduce emissions of all air contaminants. [Special Condition No. 19]
- 4) The permittee is prohibited sustained operation of the combined-cycle gas turbine at loads less than 60% when firing natural gas except during unit startup and shutdown. [Special Condition No. 20]

Monitoring:

The permittee shall install, operate and maintain a CEMS in accordance with 40 CFR Part 75 requirements to monitor and record the emissions rate (for NO_x) and the fuel consumption in the combined-cycle gas turbine #2. [Special Condition #9]

Recordkeeping:

- 1) Using CEMS, the permittee shall record the corrected NO_x concentration and the fuel consumption in the turbine. The notification and record keeping requirements of 40 CFR 60.7(c) shall be adhered to as they pertain to 40 CFR 60.334(c)(1), except the NO_x emission limitation should be replaced with 4.5 ppm by volume when operating on natural gas. Briefly, this requires that quarterly reports be submitted to the director of the Air Pollution Control Program, within 30 days after the end of each quarter, detailing any exceedances of the applicable emission limits.
- 2) The permittee shall use Attachment B or an equivalent recordkeeping form to record any exceedances or monitor downtime events as indicated by the continuous emission monitoring system.
- 3) The permittee shall maintain records of the initial performance test required by the Construction Permit #0799-012 that demonstrate compliance with the emission limitation.
- 4) 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% load. [Special Condition No. 21]
- 5) The permittee shall maintain records on-site for the most recent 60 months of all records required by this permit and shall immediately make such records available to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

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

- 2) The permittee shall report to the Air Pollution Control Programs' Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 15 days after the end of the month, in which performance testing has been performed and indicates non-compliance with the NO_x emission limitation. [Special Condition No. 7]
- 3) The permittee shall report promptly any deviations from permit requirements, including those attributable to upsets no later than 15 days after the end of the month if records indicate that the installation exceeded the NO_x limit to the Air Pollution Control Programs' Compliance/Enforcement Section. This report shall include the cause of such deviations and any corrective actions or preventive measures taken. Corrective actions may include a requirement for additional stack testing or more frequent monitoring, or could trigger implementation of a corrective action plan. [Special Condition No. 8]
- 4) Excess emissions reports shall be submitted to the Air Pollution Control Program on a quarterly basis by the permittee. If any exceedances were recorded, the quarterly report should give the day and duration of how long the emission unit was out of the limitations set forth in this rule. Additionally, the report shall give a detailed explanation of why the plant was in exceedance and corrective action taken by the permittee to bring the emission unit back into the limitations set forth in this rule.
- 5) The permittee shall report quarterly when the monitoring system is down due to inoperative periods, repairs, malfunctions or monitor adjustments. The report shall give a reason as to why the monitor was down, the duration of the downtime event, and provide the percent of the total operating period the monitor experienced downtime. The report shall distinguish between those downtime events that were due to QA activities and those events that occurred for other reasons. However, if no excess emissions occurred within the quarter and the continuous NO_x monitoring system has not been inoperative, repaired, or adjusted, that information shall be included in the report. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.

PERMIT CONDITION EU0020-004

10 CSR 10-6.060

Construction Permits Required

Construction Permit No. 0799-012 – BACT Requirement for CO

Emission Limitation:

- 1) The permittee shall not discharge into the atmosphere nor allow the emission rate of CO from the operation of the combined-cycle gas turbine at turbine loads above 60% to exceed ten ppm by volume when firing natural gas. Good combustion practices shall be utilized not to exceed the ten-ppm CO emissions limit. [Special Condition No. 4]
- 2) Exceptions: The permittee is exempt from (1) above when ice fog is deemed a traffic hazard by the owner or operator of the gas turbine. "Ice Fog" is defined as an atmospheric suspension of highly reflective ice crystals. [Special Condition No. 11]

Operation Limitation:

- 1) The permittee shall allow no fuels other than natural gas shall be combusted in the combined-cycle gas turbine Unit #2 at any time. [Special Condition No. 5]
- 2) During any startup/shutdown evolution(s), the permittee will operate in the diffusion mode of operation no longer than four-hours. The CO emission limitation shall be exempted during this period of time. [Special Condition No. 18]

- 3) During equipment breakdown or malfunction, the permittee shall immediately take practical steps to modify operations to reduce the emissions of air contaminants. The director of the Air Pollution Control Program may require feasible and practical modifications in the operation to reduce emissions of all air contaminants. [Special Condition No. 19]
- 4) The permittee is prohibited sustained operation of the combined-cycle gas turbine at loads less than 60% when firing natural gas except during unit startup and shutdown. [Special Condition No. 20]

Monitoring/Recordkeeping:

- 1) The permittee shall maintain records of the initial performance test required by the Construction Permit #0799-012 that demonstrate compliance with the emission limitation.
- 2) The permittee shall maintain records during periods of startup and shutdown, that include the amount of time required for each cycle and time that the turbines are operated at least less than the 60% load. [Special Condition No. 21]

Reporting:

- 1) The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
- 2) The permittee shall report to the Air Pollution Control Programs' Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 15 days after the end of the month, in which performance testing has been performed and indicates non-compliance with the CO emission limitation. [Special Condition No. 7]
- 3) The permittee shall report promptly any deviations from permit requirements, including those attributable to upsets no later than 15 days after the end of the month is records indicate that the installation exceeded the CO limit to the Air Pollution Control Programs' Compliance/Enforcement Section. This report shall include the cause of such deviations and any corrective actions or preventive measures taken. Corrective actions may include a requirement for additional stack testing or more frequent monitoring, or could trigger implementation of a corrective action plan. [Special Condition No. 8]

PERMIT CONDITION EU0020-005

10 CSR 10-6.070

New Source Performance Regulations

40 CFR Part 60 Subpart GG

Standards of Performance for Stationary Gas Turbines – Nitrogen Oxides (NO_x)

EPA Region VII Approval of Custom Fuel Sampling Schedules, Letter Dated January 7, 1999

Emission Limitation:

Standard for Nitrogen Oxides:

NOTE: This combustion turbine (EU0020) is subject to the requirements of §60.333(a)(1) of 40 CFR Part 60 Subpart GG. Since the NO_x emission standards of Subpart GG (87 ppmv when burning natural gas at 15% O₂ dry basis as determined by §60.332(a)(1)) is less stringent than the NO_x emission limit of Permit No. 0799-012 (Permit Condition EU0020-003), the NSPS §60.332(a)(1) standards are not listed as permit conditions to this unit. Compliance with the NO_x BACT limits will assure compliance with the §60.332(a)(1) standards as demonstrated in the Statement of Basis.

Monitoring:

Pursuant to the EPA Region VII's approved custom fuel schedule, monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the gas turbine.

- a) Since the unit only fires natural gas the custom fuel schedule is valid at all times of operation.
- b) Attachment F is the Custom Fuel Sampling Schedule

PERMIT CONDITION EU0020-006

10 CSR 10-6.070

New Source Performance Regulations

40 CFR Part 60 Subpart GG

Standards of Performance for Stationary Gas Turbines – Sulfur Dioxide (SO₂)

EPA Region VII Approval of Custom Fuel Sampling Schedules, Letter Dated January 7, 1999

Emission Limitation:

Standard for Sulfur Dioxide:

- a) The permittee shall not cause to be discharged into the atmosphere from this gas turbine any gases which contain sulfur dioxide in excess of 0.015% by volume at 15% oxygen and on a dry basis. [\[40 CFR 60.333\(a\)\]](#);

Monitoring:

The permittee shall comply with the EPA Region VII's approved custom fuel sulfur content monitoring schedule and associated provisions. [\[40 CFR 60.334\(b\)\(2\)\]](#)

Since the unit only fires natural gas the custom fuel schedule is valid at all times of operation. Attachment F is the Custom Fuel Sampling Schedule

Test methods and procedures. [\[40 CFR 60.335\]](#)

- 1) In conducting the performance tests required in 40 CFR 60.8, the permittee use as reference methods and procedures the test methods in appendix A of 40 CFR 60 or other methods and procedures as specified in this permit, except as provided for in 40 CFR 60.8(b). Acceptable alternative methods and procedures are given in paragraph 40 CFR 60.335(f). [\[40 CFR 60.335\(b\)\]](#)
 - a) U.S. EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine sulfur dioxide concentrations. [\[40 CFR 60.335\(c\)\(3\)\]](#)
- 2) The permittee shall determine compliance with the sulfur content standard in 40 CFR 60.333(b) as follows: [\[40 CFR 60.335\(d\)\]](#)
 - a) ASTM D6667-01 shall be used to determine the sulfur content of gaseous fuels (incorporated by reference-see 40 CFR 60.17)).
 - b) The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator.
- 3) To meet the requirements of 40 CFR 60.334(b), the permittee shall use the methods specified in 40 CFR 60.335(d) to determine the sulfur contents of the fuel being burned. The permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency may perform the analysis. [\[40 CFR 60.335\(e\)\]](#)

Recordkeeping

- 1) The permittee shall maintain records of reports required under §60.7(c) and §60.334(c)(2), sulfur content of fuel being fired in the turbine on a daily basis if the turbine is supplied its fuel without intermediate bulk storage.
- 2) The permittee shall maintain records on-site for the most recent 60 months of all records required by this permit and shall immediately make such records available to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

- 1) For the purposes of reports under §60.7(c), periods of excess emissions that shall be reported are defined as follows: [§60.334(c)]
 - a) *Sulfur dioxide*. Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 percent. [40 CFR 60.334(c)(2)]
Compliance with the approved custom fuel schedule is said to demonstrate compliance with this applicable standard.
 - b) *Emergency fuel*. Each period during which an exemption provided in 40 CFR 60.332(k) is in effect shall be included in the report required in 40 CFR 60.7(c). For each period, the type, reasons, and duration of the firing of the emergency fuel shall be reported.
[40 CFR 60.334(c)(4)]
- 2) The permittee shall report to the Air Pollution Control Programs' Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 15 days after the custom fuel schedule recordkeeping indicates an exceedance with the applicable standard pursuant to the regulation.
- 3) The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

PERMIT CONDITION EU0020-007

10 CSR 10-6.270 Acid Rain Source Permits Required

Emission Limitation:

The permittee shall obtain an Acid Rain Source Permit for the combustion turbine generator EU0020 pursuant to Title IV of the Clean Air Act.

An acid rain permit Missouri Department of Natural Resources project 2014-11-036, ORIS Code 7604 is being issued to the permittee in conjunction with this Title V permit. (See Attachment D) SO2 limitations are referenced in this Title IV: Phase II Acid Rain Permit for the installation.

Monitoring/Recordkeeping:

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:

Annual Compliance Certification.

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

PERMIT CONDITION EU0020– 008

10 CSR 10-6.362 Clean Air Interstate Rule Annual NOx Trading Program
10 CSR 10-6.364 Clean Air Interstate Rule Seasonal NOx Trading Program
10 CSR 10-6.366 Clean Air Interstate Rule SOx Trading Program

Emission Limitation:

The permittee shall obtain a CAIR Source Permit for the combustion turbine generator EU0020.

A CAIR Permit (Missouri Department of Natural Resources project 2012-09-074, ORIS Code 7604) is being issued to the permittee in conjunction with this Title V permit. (See Attachment E)

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

EU0030 – Auxiliary Boiler			
Emission Unit	Description	Manufacturer/Model #	2013 EIQ Reference #
EU0030	33.48 MMBtu/hr (800 hp) Auxiliary Boiler; Natural Gas; Installed December 14, 1998	Cleaver Brooks/CB- 200300-150	EU0030

PERMIT CONDITION EU0030-001

10 CSR 10-6.060
Construction Permits Required
Construction Permit No. 0998-012, Issued August 19, 1998

Operational Limitation:

The permittee shall allow no other fuels other than natural gas shall be combusted in the boiler at any time. [Special Condition No. 3]

Reporting:

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

PERMIT CONDITION EU0030-002

10 CSR 10-6.070

New Source Performance Regulations

40 CFR Part 60 Subpart Dc

Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units-
Standard for SO_x

Emission Limitation:

None.

Monitoring/Recordkeeping:

- 1) The permittee shall record and maintain records of the amount of each fuel combusted during each operating day. [§60.48c(g)(1)]
- 2) As an alternative, the permittee of a facility that combusts only natural gas may elect to record and maintain records of the amount of each fuel combusted during each calendar month; [§60.48c(g)(2)]or
- 3) Where the only fuels combusted in any steam generating unit at the property are natural gas, the permittee may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month. [§60.48c(g)(3)]

Reporting:

- 1) The permittee shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:
 - a) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.
 - b) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.
 - c) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired. [§60.48c(a)(1), (2), (3)]
- 2) The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

EU0040 through EU0060– Diesel Generators			
Emission Unit	Description	Manufacturer/Model #	2013 EIQ Reference #
EU0040	Diesel Generator #1; 18.25 MMBtu/hr (2 MW); 2550 Hp; No. 2 fuel oil fired; Installed June 2000	Detroit Diesel/T1637K36	EU0040
EU0050	Diesel Generator #2; 18.25 MMBtu/hr (2 MW); 2550 Hp; No. 2 fuel oil fired; Installed June 2000	Detroit Diesel/T1637K36	EU0050
EU0060	Diesel Generator #3; 18.25 MMBtu/hr (2 MW); 2550 Hp; No. 2 fuel oil fired; Installed June 2000	Detroit Diesel/T1637K36	EU0060

PERMIT CONDITION (EU0040 through EU0060)-001
 10 CSR 10-6.060
 Construction Permits Required
 Construction Permit No. 042000-014, Issued April 5, 2000

Emission Limitations:

The permittee shall emit into the atmosphere from the three diesel generators combined, less than 40.0 tons of NOx in every consecutive 12-month rolling average. [Special Condition No. 1]

Monitoring/Recordkeeping:

- 1) The permittee shall use Attachment C or an equivalent form to demonstrate compliance with this condition.
- 2) The permittee shall maintain records on-site for five years and they shall be made available for inspection to the Missouri Department of Natural Resources’ personnel upon request. [Special Condition No. 2]

Reporting:

- 1) The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
- 2) The permittee report to the Air Pollution Control Programs’ Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 15 days after the end of the month during which the source exceeds the NOx limitation. [Special Condition No. 3]

<p align="center">Permit Condition (EU0040 through EU0060)-002 10 CSR 10-6.075 Maximum Achievable Control Technology Standards 40 CFR 63 Subpart ZZZZ National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</p>			
Engine Category	Existing Emergency CI > 500 Hp	Monitoring, Installation, Collection, Operation and Maintenance Requirements	§63.6625(e)(3), (f), (h,) (i)
Date Constructed	<i>Before 6/12/2006</i>	Initial Compliance	No Requirements
Compliance Date	May 3, 2013	Continuous Compliance	§63.6605, §63.6640(a) & (f)
Work Practice Standards	Table 2d, Item#4	Notification Requirements	No Requirements <i>per §63.6645(a)(5)</i>
Work Practice Standards	§63.6640(f)	Recordkeeping Requirements	§63.6655(e) & (f)
Fuel Requirements	No Requirements	Reporting Requirements	§63.6640(b), Footnote 2 of Table 2d
Performance Tests	No Requirements	General Provisions (40 CFR part 63)	Yes, except per §63.6645(a)(5), the following do not apply: §63.7(b) and (c), §63.8(e), (f)(4) and (f)(6), and §63.9(b)-(e), (g) and (h).

Operational Requirements:

- 1) The permittee must be in compliance with the applicable requirements of MACT ZZZZ at all times. [\[§63.6605\(a\)\]](#)
- 2) At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. [\[§63.6605\(b\)\]](#)

Work Practice Standards:

- 1) For each RICE, the permittee must meet the following requirement (*except during periods of startup*);
 - a) Change oil and filter every 500 hours of operation or annually, whichever comes first; (The permittee has 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.)
 - b) Inspect spark plugs every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- 2) During periods of startup the permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine,

not to exceed 30 minutes, after which time the non-startup emission limitations apply. [Items 4.a, 4.b and 4.c of Table 2d to Subpart ZZZZ]

Operational 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 50 hours per year, as described in paragraphs §63.6640(f)(1) through (4), is prohibited. [§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 owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the 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)]
 - ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [§63.6640(f)(2)(ii)]
 - iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [§63.6640(f)(2)(iii)]
 - c) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph §63.6640(f)(2). Except as provided in paragraphs §63.6640(f)(4)(i) and (ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§63.6640(f)(4)]
 - i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [§63.6640(f)(4)(ii)(A) through (E)]

- (1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
 - (2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
 - (3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
 - (4) The power is provided only to the facility itself or to support the local transmission and distribution system.
 - (5) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.
- 2) 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)]

Recordkeeping Requirements:

- 1) The permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the facility's own maintenance plan. [§63.6655(e)]
- 2) The permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [§63.6655(f)]

Reporting:

- 1) The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
- 2) The permittee shall report promptly any deviations from permit requirements, including those attributable to upsets, no later than 15 days after the end of the month to the Missouri Air Compliance Coordinator; EPA Region 7, 11201 Renner Boulevard, Lenexa, KS 66219. This report shall include the cause of such deviations and any corrective actions or preventive measures taken. Corrective actions may include a requirement for additional stack testing or more frequent monitoring, or could trigger implementation of a corrective action plan.
- 3) The permittee must report each instance in which an applicable emission limitation or operating limitation in Table 2c to MACT ZZZZ was not met. These instances are deviations from the emission and operating limitations in MACT ZZZZ, and must be reported according to the requirements in §63.6650. [§63.6640(b)]

EU0070 – Diesel Fire Pump			
Emission Unit	Description	Manufacturer/Model #	2013 EIQ Reference #
EU0070	185 HP Diesel Fire Pump-, installed 1999, Fuel type – Fuel Oil	Caterpillar, model 3208	EU0070

Permit Condition EU0070 -001			
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart ZZZZ – National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines			
Engine Category	Existing Emergency CI < 500 Hp	Monitoring, Installation, Collection, Operation and Maintenance Requirements	§63.6625(e)(2), (f), (h), (i)
Date Constructed	<i>Before 6/12/2006</i>	Initial Compliance	No Requirements
Compliance Date	May 3, 2013	Continuous Compliance	§63.6605, §63.6640(a) & (f)
Maintenance Requirements	Table 2d, Item#4	Notification Requirements	No Requirements <i>per §63.6645(a)(5)</i>
Work Practice Standards	§63.6640(f)	Recordkeeping Requirements	§63.6655(e) and (f)
Fuel Requirements	No Requirements	Reporting Requirements	§63.6640(b) Footnote 2 of Table 2d
Performance Tests	No Requirements	General Provisions (40 CFR part 63)	Yes, except per §63.6645(a)(5), the following do not apply: §63.7(b) and (c), §63.8(e), (f)(4) and (f)(6), and §63.9(b)-(e), (g) and (h).

Work Practice Standards:

- 1) For each Emergency stationary CI RICE, the permittee must meet the following requirements, except during periods of startup.
 - a) Change oil and filter every 500 hours of operation or annually, whichever comes first;¹
 - b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [\[Table 2d To Subpart ZZZZ, item #4\]](#)

Operational 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 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 owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the 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)]
 - ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [§63.6640(f)(2)(ii)]
 - iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [§63.6640(f)(2)(iii)]
- c) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph §63.6640(f)(2). Except as provided in paragraphs §63.6640(f)(4)(i) and (ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§63.6640(f)(4)]
 - i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [§63.6640(f)(4)(ii)(A) through (E)]
 - (1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
 - (2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
 - (3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

- (4) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (5) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

Recordkeeping Requirements:

- 1) The permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the facility's own maintenance plan. [[§63.6655\(e\)](#)]
- 2) The permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [[§63.6655\(f\)](#)]

Reporting:

- 1) The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
- 2) The permittee shall report promptly any deviations from permit requirements, including those attributable to upsets, no later than 15 days after the end of the month to the Air Pollution Control Programs' Enforcement Section. This report shall include the cause of such deviations and any corrective actions or preventive measures taken. Corrective actions may include a requirement for additional stack testing or more frequent monitoring, or could trigger implementation of a corrective action plan.
- 3) The permittee must report each instance in which you did not meet each emission limitation or operating limitation in Table 2d to MACT ZZZZ that applies to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. [[§63.6640\(b\)](#)].

PERMIT CONDITION (EU0040 through EU0070)-001

10 CSR 10-6.260

Restriction of Emission of Sulfur Compounds

Note: 10 CSR 10-6.260 is federally enforceable only. See Statement of Basis for explanation for why 10 CSR 10-6.260 is included in the operating permit as an applicable regulation.

Emission Limitation:

- 1) The permittee shall not allow emissions from any new source operation to contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide.
- 2) Stack gasses shall not contain more than 35 milligrams (mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.

- 3) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards.

Operational Limitation/Equipment Specifications:

The emission units shall be limited to burning No. 2 fuel oil with a sulfur content less than 0.5%.

Monitoring/Recordkeeping:

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

Reporting:

The permittee shall report any deviations/exceedances of this permit condition no later than 15 days after the end of the month to the Air Pollution Control Programs' Enforcement Section and the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program 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 (EU0040 through EU0070)-002 10 CSR 10-6.261 Control of Sulfur Dioxide Emissions</p>
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Emission Limitation:

Emissions from any new source (EU-127) operation shall not contain more 8,509 parts per million (ppm_v) of sulfur dioxide for residual fuel and 8,812 parts per million (ppm_v) of sulfur dioxide 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) Owners or operators of sources using fuel delivery records for compliance must also maintain the fuel supplier certification 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) Owners or operators of sources using fuel sampling and analysis for compliance must also follow the requirements in 10 CSR 10-6.261(5)(D).
 - 8) Owners or operators 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).

EU0100 – Black Start Diesel Generator			
Emission Unit	Description	Manufacturer/Model #	2013 EIQ Reference #
EU0100	Black Start Diesel Generator -3673 Hp 2500 kW/ 3125 kVA, 4160 Volt 3 Phase 6w 60 Hz engine-generator – Constructed 2015	MTU, model 16V 4000 G83L	EU0100

Permit Condition EU0100 -001

10 CSR 10-6.070

New Source Performance Regulations

40 CFR Part 60 Subpart III

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Emission Limitations:

- 1.) The permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, (Ultra Low Sulfur Diesel (ULSD) 15 ppm) [\[§60.4207\(b\)\]](#)
- 2.) The permittee must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. [\[§60.4205\(b\)\]](#)

Compliance /Recordkeeping Requirements:

- 1.) The engines shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g). [\[§60.4211\(c\)\]](#)
- 2.) The permittee shall do all of the following, except as permitted under §60.4211(g):
 - a.) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
 - b.) Change only those emission-related settings that are permitted by the manufacturer; and
 - c.) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you. [\[§60.4211\(a\)\(1\) through \(a\)\(3\), and §60.4211\(c\)\]](#)
- 3.) If the permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows: [\[§60.4211\(g\)\]](#)
 - a.) The permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer. [\[§60.4211\(g\)\(2\)\]](#)

Installation & Maintenance Requirements:

- 1.) The permittee shall install and configure the engines according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g). [\[§60.4211\(a\)\]](#)
- 2.) The permittee shall do all of the following, except as permitted under §60.4211(g):
 - a.) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
 - b.) Change only those emission-related settings that are permitted by the manufacturer; and
 - c.) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you. [\[§60.4211\(a\)\(1\) through \(a\)\(3\)\]](#)

- 3.) If the permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer; the permittee must demonstrate compliance as follows: [\[§60.4211\(g\)\]](#)
- a.) The permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer. [\[§60.4211\(g\)\(2\)\]](#)

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 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 is only an excerpt from the regulation or code, and is provided for summary purposes only.

10 CSR 10-6.045 Open Burning Requirements

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

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

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information list to the director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other

pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.

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

10 CSR 10-6.060 Construction Permits Required

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

10 CSR 10-6.065 Operating Permits

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

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

- 1) The permittee shall submit full emissions report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the director.
- 2) The permittee may be required by the director to file additional reports.
- 3) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
- 4) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079.
- 5) The fees shall be payable to the Department of Natural Resources and shall be accompanied by the emissions report.
- 6) The permittee shall complete required reports on state supplied EIQ forms or electronically via MoEIS. Alternate methods of reporting the emissions can be submitted for approval by the director. The reports shall be submitted to the director by April 1 after the end of each reporting year. If the full emissions report is filed electronically via MoEIS, this due date is extended to May 1.
- 7) The reporting period shall end on December 31 of each calendar year. Each report shall contain the required information for each emission unit for the twelve (12)-month period immediately preceding the end of the reporting period.
- 8) The permittee shall collect, record and maintain the information necessary to complete the required forms during each year of operation of the installation.

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

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

10 CSR 10-6.150 Circumvention

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

10 CSR 10-6.165 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 by a permittee:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a) Applicable monitoring or testing methods, cited in:
 - i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - ii) 10 CSR 10-6.040, "Reference Methods";
 - iii) 10 CSR 10-6.070, "New Source Performance Standards";
 - iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
 - b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.

-
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
 - 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
 - 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
 - 5) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR part 82*

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.
 - iii) Exception. Monitoring requirements which require reporting more frequently than semi annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
 - c) Each report shall identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
 - d) Submit supplemental reports as required or as needed. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.
 - ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.

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

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

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

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

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

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

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

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

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

This installation is being issued an Acid Rain Permit in conjunction with this operating permit. It is included as Attachment D.

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 application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
 - b) The permittee must provide contemporaneous written notice of the change to the Air Pollution Control Program, 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 Brent Ross, Manager, EH&S. 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
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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.

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Attachment A
 Rolling 12-Monthly SO_x Emission Tracking Record

Plant wide SO_x emissions calculations for Month: _____

Emission Unit	Unit Description	Fuel Throughput	Emission Factor	EF Source	Monthly SO _x Emissions
EU0010	Combustion Turbine #1 (Natural Gas)	N/A	N/A	N/A	(from CEMS)
EU0020	Combustion Turbine #2 (Natural Gas)	N/A	N/A	N/A	(from CEMS)
EU0030	Auxiliary Boiler (Natural Gas)	MMCF	0.6 .b/MMCF	WebFIRE SCC code 10100602	
	Two Cyclone Water Bath Heaters	MMCF	0.6 lb/MMCF	WebFIRE SCC code 10300603	
Total Monthly SO _x Emissions:					
12-month rolling total SO _x Emissions:					

Monthly SO_x Emissions = Monthly Fuel Throughput x Emission Factor ÷ 2000.

Rolling 12-month total SO_x emissions = Sum of current month's emissions + previous 11 months.

Plantwide Emissions of less than 40.0 tons/year demonstrates compliance.

Startup, Shutdown and malfunction emissions as reported to the Air Pollution Control Programs Compliance and Enforcement section during the most recent 12-month period must be included in the rolling total.

Attachment B

NO_x EMISSION SUMMARY REPORT FOR UNIT 2

PART I. INSTALLATION INFORMATION

Name of Company: St Francis Power Plant
 Address: _____
 Report Period: _____
 Cer./CEA: (date) (Hr)
 Emission Limit: _____
 Manufacturer/Model Number _____ Stack/Process _____
 Emission Point: _____
 Pollutant Monitored: NO_x PPMC
 CDs CNTY & SOURCE #'s: _____

Total Source Operating Time in Report Period: _____ (hrs)

PART II. CAUSE OF EXCESS EMISSIONS (EE)	Duration of EE (Hrs)	Percent of Operating Time
A. Air Pollution Control Equipment Failure (01)		
B. Fuel Problem (02)		
C. Process Problem (03)		
D. Unknown Cause (Excess Emission) (04)		
E. Startup (05)		
F. Soot Blowing (06)		
G. Other Known Causes (Excess Emission) (07)		
H. Shutdown (08)		
I. Total (A + B + ...E)		

Part III CAUSES OF CEMS DOWNTIME	Downtime (Hrs)	Percent of Operating Time
A. Monitor Equipment Malfunction (01)		
B. Non-monitor Equipment Malfunction (02)		
C. Quality Assurance (03)		
D. Other Known Cause (Monitor Malfunction) (04)		
E. Unknown Cause (Monitor Malfunction) (05)		
F. Total (A + B + ...E)		

Note: Percent Operating Time = [{EE (hrs) or Downtime (hrs)} / Total Operating Time] x 100

Attachment B – Continued

EXCESS NO_x PPMC EMISSION REPORT

Source: St Francis Power Plant

Quarter: _____ Year: _____

Source of Emissions: _____

The following information is reported in total time for the entire quarter identified above.

Excess Emission Duration _____ (hours)

If duration is other than zero, submit NO_x PPMC emission form.

Monitoring System Downtime Due to Quality Assurance _____ (hours)

If downtime, not including zero and span calibrations, is other than zero, submit downtime system Downtime form.

Monitoring System Downtime Excluding Downtime Due to Quality Assurance

_____ (hours)

Source Operating Time

_____ (hours)

Reported by _____

Position Title _____

Attachment B – Continued

EXCESS EMISSION SUMMARY – NO_x PPMC

Source: St. Francis Power Plant Report Period: ____/____/____ to ____/____/____

Source of Emissions: _____

<u>Date</u>	<u>Time</u>	<u>Magnitude</u>	<u>Reason Message</u>
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Attachment B – Continued

EXCESS EMISSION SUMMARY – NO_x PPMC MONITORING SYSTEM DOWNTIME

Source: St. Francis Power Plant Report Period: ___/___/___ to ___/___/___

Source of Emissions: _____

<u>Date</u>	<u>Time</u>	<u>Duration (hr)</u>	<u>Reason Message</u>
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Attachment D
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: St. Francis Power Plant, **ORIS Code:** 7604
Project Number: 2014-11-036, **Permit Number:** OP2016-013
Unit IDs: 1 and 2
Effective Dates: APR 28 2016 through APR 28 2021

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

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

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

This acid rain permit is effective for the five-year period shown above, per 40 CFR 72.69, *Issuance and effective date of acid rain permits*. The designated representative must submit an application for renewal of this permit no later than six months prior to the operating permit expiration date, per 40 CFR 72.30, *Requirement to apply*, and in conjunction with the operating permit renewal application.

APR 28 2016

Date



Director or Designee,
Department of Natural Resources

St. Francis Power Plant
Facility (Source) Name (from STEP 1)

Page 2

Permit Requirements

STEP 3

Read the standard requirements.

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

Monitoring Requirements

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

Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

St. Francis Power Plant Facility (Source) Name (from STEP 1)

Page 3

Sulfur Dioxide Requirements, Cont'd.

STEP 3, Cont'd.

(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.

(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements

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

Excess Emissions Requirements

(1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.

(2) The owners and operators of an affected source that has excess emissions in any calendar year shall:

- (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
- (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

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

- (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the

St. Francis Power Plant

Facility (Source) Name (from STEP 1)

Page 4

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

STEP 3, Cont'd. Recordkeeping and Reporting Requirements, Cont'd.

- (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

St. Francis Power Plant
Facility (Source) Name (from STEP 1)

STEP 3, Cont'd.

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating

Effect on Other Authorities, Cont'd.

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

(2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

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

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Certification

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

Name <i>BRENT A. ROSS</i>	
Signature <i>[Handwritten Signature]</i>	Date <i>11-17-2014</i>

Attachment E

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 NO_x Trading Program*, and 10 CSR 10-6.366, *Clean Air Interstate Rule SO_x Trading Program*, the State of Missouri issues this CAIR Permit.

Installation Name: AECI – St. Francis Power Plant, **ORIS Code:** 7604

Project Number: 2012-09-074, **Permit Number:** OP2015-074

Unit IDs: Units 1 and 2

Effective Dates: **APR 28 2016** through **APR 28 2021**

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 units 1 and 2 and AECI – St. Francis Power Plant, plant 069-0066.

This CAIR permit is effective for the dates shown above. The designated representative must submit an application for renewal of this permit no later than six months prior to OP expiration date, and in conjunction with the operating permit renewal application.

APR 28 2016

Date



Director of Designee,
Department of Natural Resources

St. Francis Power Plant
Plant Name (from Step 1)

CAIR Permit Application
Page 2

STEP 3,
continued

(b) Monitoring, reporting, and recordkeeping requirements.

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

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

(c) Nitrogen oxides emissions requirements.

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

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

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

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

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

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

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

Sulfur dioxide emission requirements.

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

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

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

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

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

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

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

Nitrogen oxides ozone season emissions requirements.

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

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

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

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

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

St. Francis Power Plant
Plant Name (from Step 1)

CAIR Permit Application
Page 3

STEP 3,
continued

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

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

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

(d) Excess emissions requirements.

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

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

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

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

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

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

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

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

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

(e) Recordkeeping and Reporting Requirements.

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

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

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

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required

under the CAIR NO_x Annual Trading Program, CAIR SO₂ Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable).

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

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

St. Francis Power Plant
Plant Name (from Step 1)

CAIR Permit Application
Page 4

STEP 3,
continued

(f) Liability.

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

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

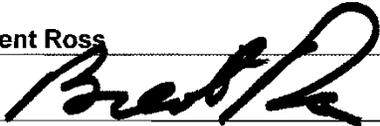
(3) Any provision of the CAIR NO_x Annual Trading Program, CAIR SO₂ Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable) that applies to a CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) or the CAIR designated representative of a CAIR NO_x unit, CAIR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

(g) Effect on Other Authorities.

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

Certification

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

Name Brent Ross	
Signature 	Date 9-18-2012

Attachment F
EPA Region VII Approval of Custom Fuel Sampling Schedules

Dan / File EN.SF. 3345.1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

SEP 09 1999

Charles S. Means, P.E.
Manager, Environmental Services
Associated Electric Cooperative, Inc.
P.O. Box 754
Springfield, MO 65801-0754

Dear Mr. Means:

Re: NSPS, Subpart GG -- St. Francis Station, Unit 2 -- Custom
Fuel Sulfur and/or Nitrogen Content Monitoring Schedule;
Pipeline-Quality Natural Gas

Regarding your letter to me dated August 26, 1999, we extend the coverage of our January 7, 1999 letter to include the above-mentioned Unit 2. All NSPS-affected units at the three stations listed in the 1/07/99 letter are covered by the letter's requirements and provisions if, on a per unit basis, the unit had operating or proposal (relative to the state's construction permitting rules) status at the time of the letter. This letter extends the 1/7/99 letter's coverage to Unit 2 under the assumption the unit did not have such status on or about 1/07/99.

We will appreciate a "brief written notification" whenever an NSPS-affected unit is installed at any of the listed stations. The information, including unit identification, will help us keep track of the units affected by the custom schedule and associated requirements. A custom schedule request for units at stations other than those listed in the 1/07/99 letter will need to include, at a minimum, information of the type provided in you August 26, 1999, letter.

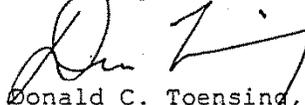
The 1/07/99 letter allows an outside party to collect, record and maintain measurements for the owner/operator. If/when AECI engages an outside party, we request written notification of the date the outside party will commence the sampling and measurements for AECI and, if needed, the date AECI resumes the activity. The current version of our GPA-2377 based Custom Schedules basically informs recipients that the owner/operator will be held responsible for failings/deficiencies by the outside party regarding measurement frequency, data quality and implementation of GPA-2377's provisions.

2

Regarding the sampling tubes manufactured by MSA, we express the opinion that it is the owner/operator's responsibility to ensure that the tubes meet the requirements/recommendations, if any, set forth in the latest version of GPA-2377.

If you have any questions pertaining to this letter, please contact me or Dan Rodriguez of my staff at 913/551-7020.

Sincerely,



Donald C. Toensing, Chief
Air Permitting & Compliance Branch

cc: Steve Feeler, MDNR



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101
JAN 07 1998

CERTIFIED MAIL
Return Receipt Requested

Charles S. Means
Manager, Environmental Services
Alternate Designated Representative
Associated Electric Cooperative, Inc.
P.O. Box 754
Springfield, MO 65801-0754

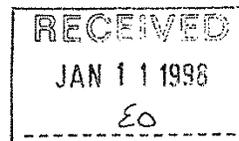
Re: NSPS, Subpart GG - Custom Fuel Sulfur and/or Nitrogen
Content Monitoring Schedule; Pipeline-Quality Natural Gas

St. Francis Power Plant (near Glennonville, MO), Essex Power Plant (near Dexter, MO) and Nodaway Power Plant (near Maryville, MO); stationary gas turbines being constructed or proposed for construction.

Dear Mr. Means:

In consideration of the information in letters sent to us, cover letters dated 11/19/98 and 12/28/98, and of 40 CFR 60.334(b)(2) and 60.13(i), we hereby grant the custom schedule set forth below for application with respect to the measurement of the sulfur and nitrogen content of the pipeline-quality natural gas burned in the NSPS/Subpart GG-affected turbines at the company's above-referenced stations:

[NOTE 1: The custom schedule and associated provisions are effective immediately upon the company's receipt date of this letter (see also Item 4 of this letter) and remain in effect unless the company subsequently informs the EPA regional office by return letter that the company rejects the schedule or has decided to no longer comply with the schedule or associated provisions (in which case, the monitoring requirements as set forth in 40 CFR Part 60, Subpart GG, at the time of the company's letter are applicable) or unless the custom schedule is replaced or revoked for any reason by EPA].



2

[NOTE 2: The company's letter of 11/19/98 states that the St. Francis Unit 1 turbine has provisions incorporated into its permit to fire a low sulfur back up fuel oil, if needed, and that fuel oil usage is not expected to exceed 10% of the unit's annual operating time. The Custom Schedule that follows is valid for only those periods of time when the units in question fire pipeline-quality natural gas. During periods of oil firing, or as needed, the company must measure on a daily [or on a transfer to bulk storage] basis the sulfur and the nitrogen content of the oil to be fired in the unit. If the company plans to use a measurement method other than one of those mentioned in NSPS, Subpart GG, we suggest that the company obtain EPA's prior approval of the method].

CUSTOM SCHEDULE

1. The "Conditions for Custom Fuel Sampling Schedule for Stationary Gas Turbines" as set forth on the Enclosure attached to EPA memorandum entitled "Authority for Approval of Custom Fuel Monitoring Schedules Under NSPS Subpart GG", dated Aug 14, 1987, is herein incorporated by reference; a copy of the Enclosure is attached and is modified below.

1a. With regard to 2.a of the above-mentioned Enclosure, the "approved alternative method" shall mean the following:

The Gas Processors Association's (GPA's) Standard 2377 (Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes), as currently in effect and as may be revised from time-to-time by the GPA.

1b. The owner/operator shall inform the EPA regional office, by letter, of any revision to the Standard by the issuing entity, shall immediately begin using the revised Standard, and shall continue to use the revised Standard until the EPA regional office requests otherwise.

The owner/operator shall inform the EPA regional office, by letter, of the discontinuation of the Standard by the issuing entity. The owner/operator shall continue to use the discontinued Standard until the EPA regional office requests otherwise.

The above notification(s) regarding the revision or discontinuation of the Standard shall be sent to the regional office within 30 calendar days of the owner/operator's knowledge of such.

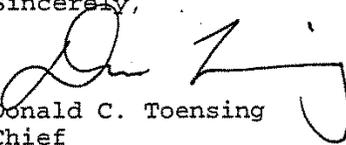
- 1c. With regard to 2.d and 3 of the **Enclosure**, the mention of "State" or "State Air Control Board" shall mean the EPA, Region VII, Air, RCRA and Toxics Division (ARTD); i.e., the EPA regional office.
2. For purposes of accountability and quality assurance regarding the recorded measurements, we suggest that certain information be recorded and maintained by the owner/operator [see Attachment A]. Our suggestions, however, do not relieve the owner/operator of its responsibility to record and maintain all information that may be needed by the regional office to verify that the owner/operator has met all requirements and/or recommendations of GPA Standard 2377 or of the NSPS regulation.
3. This custom schedule is subject to revision or revocation, without prior notice, at the discretion of the EPA regional office.
4. The owner/operator shall inform the EPA regional office by letter of its acceptance of this Custom Schedule (and associated provisions) and of the date the company will begin to implement the schedule. It is understood that a change of ownership will not void the schedule but that a change of location and/or gas supplier may invalidate the schedule.
5. If the owner/operator of the turbines decides to no longer comply with any requirement of this custom schedule as set forth above or as subsequently revised by the EPA regional office, the owner/operator shall immediately comply with all applicable requirements of 40 CFR Part 60, Subpart GG, shall record and maintain appropriate records and shall notify the EPA regional office of the company's decision; said notification shall be made by letter to the Chief, Air Permitting and Compliance Branch postmarked no later than 7 calendar days of said decision.
6. The above provisions presume that the owner/operator of the turbine(s) affected by the requirements of this Custom Schedule will perform the fuel sulfur/nitrogen content measurement procedures. This document allows the use of an outside party (e.g., an independent lab, the fuel supplier) to collect, record and/or maintain measurements for the owner/operator as long as:
1) all requirements of this custom schedule document and all non-superseded applicable requirements of NSPS Subparts A and GG are met on an on-going basis, 2) the owner/operator has given the EPA regional office prior written notice of such arrangement and of the date the arrangement will commence and 3) the EPA regional office will have access to pertinent records.

4

END OF CUSTOM SCHEDULE

If you have any questions pertaining to this letter, please contact me or Dan Rodriguez of my staff at 913-551-7020.

Sincerely,



Donald C. Toensing
Chief
Air Permitting & Compliance Branch

Enclosures: Enclosure attached to EPA memo dated Aug 14, 1987
: Attachment A

cc: Steve Feeler, MDNR

Enclosure

Conditions for Custom Fuel Sampling Schedule for Stationary Gas Turbines

1. Monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the gas turbine.
2. Sulfur Monitoring
 - a. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are: ASTM D1072-80; ASTM D3031-81; ASTM D3246-81; and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2).
 - b. Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with 40 CFR 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.
 - c. If after the monitoring required in item 2(b) above, or herein, the sulfur content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.
 - d. Should any sulfur analysis as required in items 2(b) or 2(c) above indicate noncompliance with 40 CFR 60.333, the owner or operator shall notify the State Air Control Board of such excess emissions and the custom schedule shall be re-examined by the Environmental Protection Agency. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
3. If there is a change in fuel supply, the owner or operator must notify the State of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
4. Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of three years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.

Attachment A

Re: Measurements using GPA Standard 2377

For purposes of accountability and quality assurance regarding the recorded measurements, we suggest that the owner/operator, at a minimum, record and maintain the following information:

- a. **Maintenance records and malfunction records** (possibly via appropriate "notes" on data record sheets) pertaining to the measurement equipment (e.g., pumps, containers).
- b. **Purchase records** pertaining to the major components of the measurement equipment (e.g., pumps, detection tubes). At a minimum, the following additional information should be included: Quantity and date purchased/received, detection tube type (for H₂S or for CO measurement) and model number, the detection range of the tubes purchased/received, pump model number, the temperature range of the tubes and data conversion sheets supplied by detection tube manufacturers. Retention of manufacturer spec sheets for the equipment in question will probably suffice if the sheets contain the needed information.
- c. We suggest that each **data recording sheet** contain, at a minimum, the following recorded information [NOTE: Where appropriate, a "check sheet" format might be useful]:

General Information

- The date of the reading, the number of pump strokes used to draw the gas through the detection tube, the measurement reading and the reader's name or initials (and the reader's affiliation if other than the owner/operator).
- Any adjustment calculations, if/when made.
- Each measurement expressed in terms of the reading and the applicable standard (e.g., ppm, by wt.) and, where NSPS Subpart GG requires, in terms of SO₂ equivalent.
- Each completed data sheet should contain a signed statement by a manager equivalent or greater that the person making the measurement has been adequately trained by the owner/operator regarding the procedures of the Standard and that the measurement was made in accordance with the Standard.



associated electric cooperative, inc.

2814 S. Golden, P.O. Box 754
Springfield, Missouri 65801-0754
417-881-1204 FAX 417-885-9252

November 19, 1998

Mr. Donald C. Toensing
Chief
Air Permitting & Compliance Branch
U.S. Environmental Protection Agency
Region VII
726 Minnesota Avenue
Kansas City, KS 66101

Dear Mr. Toensing:

Associated Electric Cooperative, Inc. is requesting a custom fuel schedule be approved to demonstrate compliance with the fuel monitoring provisions for both nitrogen and sulfur required by 40 CFR Part 60, Subpart GG, for stationary gas turbines. The custom fuel schedule would be utilized for three separate power plant facilities currently being constructed or proposed for construction in Missouri. The three facilities are the St. Francis Power Plant located in southeastern Missouri near Glennonville, the Essex Power Plant located east of Dexter, Missouri, and the Nodaway Power Plant near Maryville, Missouri. All three projects were issued a Permit to Construct by the Missouri Department of Natural Resources Air Pollution Control Program. The St. Francis facility is a combined-cycle combustion turbine with the other two plant sites being two simple-cycle peaking unit projects. Pursuant to the "Standards of Performance for Stationary Gas Turbines" (Subpart GG), each facility would be required to monitor both the sulfur and nitrogen content of the fuel fired in the gas turbines on a daily basis. However, we are requesting a custom fuel monitoring schedule be implemented since all three units fire exclusively on pipeline quality natural gas which typically has no fuel bound nitrogen and a sulfur content appreciably below the allowable 0.8 percent by weight. The St. Francis Unit 1 turbine has the provisions incorporated into its permit to fire a low sulfur back up fuel oil, if needed. Fuel oil usage is not expected to exceeded 10% of its annual operating time.

The custom fuel-monitoring schedule should be described as follows:

- 1) Effective the date of approved custom schedule, sulfur in the fuel would be conducted monthly for six months. If this monitoring shows little variability in the fuel sulfur content and is in compliance with 40 CFR 60.333, then sulfur monitoring would be conducted once per quarter for two quarters.
- 2) If, after the monitoring described above, the sulfur content of the fuel continues to show little variability and is in compliance with 40 CFR 60.333, sulfur monitoring in the fuel would be conducted annually.
- 3) Fuel-bound nitrogen from pipeline natural gas would expect to be minimal, therefore; it is unnecessary to require extensive sampling of the natural gas. Monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the gas turbine.

Alternative Method-Specific Information

- An indication if the age of the tube used is greater than 2 years old relative to its date of manufacture.
- The temperature of the sampled gas.
- The results of the pump leak detection procedure recommended by the Standard. The leak detection procedure must be conducted prior to the use of the pump and each time the pump is used. A loss of vacuum within 30 seconds should be noted as well as corrective actions taken, if any.
- The tube's detection range or Model number.
- The duration of "purging" of the gas sample container prior to each measurement.

Mr. Don Toensing
Custom Fuel-Monitoring Schedule
November 19, 1998
Page 2

Associated requests the flexibility to collect natural gas samples or have our gas supplier collect samples and provide record of analysis. Further, Associated requests an "approved alternative method" be used to measure percent sulfur by weight using Hydrogen Sulfide, H₂S - 1 PF 029 sampling tubes manufactured by MSA. This method would follow the Gas Processors Association's (GPA's) Standard 2377 (Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas (Using Length of Stain Tubes), enclosed. This is similar to the request from UtiliCorp United in a letter dated July 6, 1998 to a Mr. Dan Rodriguez, and approved by you in a letter to Jeremy Morgan dated August 20, 1998.

Associated is proposing to use the same procedures implemented for the Ralph Green Plant regarding sampling tube, training, maintenance of sampling equipment and tubes, sampling device purchase records, and hydrogen sulfide conversion for each of its affected facilities. I have provided the conversion calculation (Enclosure 1) of 0.25 grains H₂S per 100 cubic feet to 8 ppm used for the sample calculation from UtiliCorp.

It is Associated's intent to be in compliance with all its applicable regulations and would appreciate your consideration of our request for a custom fuel-monitoring schedule for each of the proposed facilities. If you need further information or have any questions regarding the materials provided, please contact me at (417) 885-9277 or e-mail at dhedrick@aeci.org.

Sincerely,



Daniel S. Hedrick
Environmental Specialist I

Enclosures
c: Charles Means



associated electric cooperative, inc.

2814 S. Golden, P.O. Box 754
Springfield, Missouri 65801-0754
417-881-1204 FAX 417-885-9252

December 28, 1998

Mr. Don Toensing
Chief
Air Permitting & Compliance Branch
U.S. Environmental Protection Agency
Region VII
725 Minnesota Avenue
Kansas City, KS 66101

Dear Mr. Toensing:

Associated Electric Cooperative, Inc. requested a custom fuel schedule be approved by EPA Region VII in a letter addressed to you dated November 19, 1998. The custom fuel schedule would be used to demonstrate compliance with the fuel monitoring provisions for both nitrogen and sulfur in lieu of the requirements pursuant to 40 CFR Part 60, Subpart GG, for stationary gas turbines. The custom fuel schedule would be utilized for three separate power plant facilities currently being constructed or proposed for construction in Missouri. The three facilities are the St. Francis Power Plant located in southeastern Missouri near Glennonville, the Essex Power Plant located east of Dexter, Missouri, and the Nodaway Power Plant near Maryville, Missouri. The Missouri Department of Natural Resources Air Pollution Control Program issued a Permit to Construct for all three projects.

In a phone conversation this month between a Mr. Dan Rodriguez, from EPA Region VII and Daniel Hedrick, of my staff, it is Associated's understanding that a formal request letter for a custom fuel schedule should be made and signed by myself. Therefore, I am formally requesting the custom fuel schedule for the three projects currently under construction be approved based on the information provided to you in the November 19 letter.

Associated appreciates your consideration of this request for its proposed facilities. If you need any further information, please contact Daniel Hedrick at (417) 885-9277 or e-mail at dhedrick@aeci.org.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. S. Means', written in a cursive style.

Charles S. Means
Manager, Environmental Services
Alternate Designated Representative

c: Gary L. Fulks
Randy Raymond, MDNR, w/ November 19 letter attached

File 1-11-40

43-3052

GPA Standard 2377-86

**Test for Hydrogen Sulfide and Carbon Dioxide
in Natural Gas
Using Length of Stain Tubes**



*Adopted as Tentative Standard, 1977
Revised and Adopted as a Standard, 1984
Revised, 1986
Reprinted, 1988, 1997, 1998*

Gas Processors Association

6526 East 60th St.

Tulsa, Oklahoma 74145

Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes

1. SCOPE

1.1 This method covers the determination of hydrogen sulfide in natural gas in the range of 3 ppmv to 5 vol %.

1.2 This method covers the determination of carbon dioxide in natural gas in the range of 0.25 to 10 vol %.

1.3 This method as written is applicable to the determination of hydrogen sulfide and carbon dioxide in hydrocarbons and in air.

2. SUMMARY OF METHOD

2.1 The sample is passed through the detector tube made specifically for the detection of hydrogen sulfide or carbon dioxide by specially prepared chemicals. The hydrogen sulfide or carbon dioxide present in the sample reacts with the chemical to produce a color change. The length of stain (or color change) produced in the detector tube when exposed to a measured volume of sample is directly proportional to the amount of hydrogen sulfide or carbon dioxide present in the sample being tested. A bellows or piston type pump is used to draw a measured volume of sample through the tube at a controlled rate of flow.

The length of stain produced is converted to volume by comparison with a calibration scale supplied by the manufacturer with each box of detector tubes. Some tubes have a pre-determined calibration constant which is multiplied by the observed length of stain to arrive at a volume percent concentration in the sample being tested. The apparatus is easily portable and is completely suitable for making spot checks for hydrogen sulfide or carbon dioxide under the field conditions.

3. APPARATUS

3.1 *Piston or Bellows Pump* - The pump is hand-operated and must be capable of drawing a minimum of 100 ml per stroke of sample through the detector tube with an accuracy of ± 2.0 ml.

3.2 *Detector Tube* - Tubes must be made of glass with break-off tips sized to fit the orifice of the pump. The chemical sealed in the tube must be specific for hydrogen sulfide or carbon dioxide and produce a distinct color change when exposed to a sample of gas containing hydrogen sulfide or carbon dioxide. Any substances known to interfere must be listed in instructions accompanying the tubes. A calibration scale or other markings referenced to a scale should be etched directly on the tube to provide for easy interpretation of hydrogen sulfide or carbon dioxide content. Shelf life of the detector tubes must be a minimum of two years when stored according to the manufacturer's recommendations.

3.3 *Gas Sampling Container* - Any container which provides for access of the detector tube into a uniform flow of sample gas at atmospheric pressure and isolated from the surrounding atmosphere.

3.3.1 A suitable container may be devised from a one pint polyethylene bottle. A $\frac{1}{4}$ in OD polyethylene tubing sealed into the bottle and discharging near the bottom provides for flow of sample gas into the bottle. A $\frac{1}{2}$ in hole cut into the cap of the bottle provides both access for the detector tube and a vent for gas flow. (Figure 1.)

Note 1-A one pint polyethylene wash bottle is easily adapted to a suitable sample container.

3.3.2 Mylar gas collection bags are useful as gas sample containers when the supply of sample gas is limited. Mylar bags with a minimum capacity of two liters are an acceptable substitute for the bottle described in 3.3.1.

3.4 *Barometer* - Any barometer equipped with a scale graduated in 1 mm of mercury subdivisions and a range including the expected atmospheric pressure condition at the sampling site.

3.5 *Thermometer* - Standard laboratory thermometer graduated in 1°C subdivisions and including the range of sample temperatures expected during the test.

3.6 *Needle Valve and Tubing* - Any stainless steel needle valve which can be adjusted to control the flow of gas from source pressure into the gas sampling container. Polyethylene or gum rubber tubing may be used to connect the gas sampling container to the needle valve outlet.

Note 2-A pressure regulator may be used to control flow of the sample gas, in lieu of a needle valve.

4. SAMPLING

4.1 Select a sampling point which affords access to a representative sample of the gas to be tested (i.e., a point on the main flow line). Flow line connections should have a centerline tap.

4.1.1 Open source valve (Valve A), Figure 1, and blow down vigorously to clear foreign materials from source valve and connecting nipple. Close source valve.

4.1.2 Install control valve (Valve B) or pressure regulator on outlet of source valve. Connect outlet of control valve (Valve B) to gas sampling container using shortest length practicable of polyethylene or other suitable tubing.

4.1.3 Open source valve (Valve A) and crack control valve (Valve B) to obtain positive flow of gas through gas sample container venting to atmosphere through tube access and vent (Vent C).

4.1.4 Purge gas sample container until all air is displaced. A minimum purge time of three minutes is recommended.

Note 3-When using collection bags the same procedure is followed except that the deflated bag is attached directly to control valve (Valve B). The bag is filled once, disconnected and deflated. The bag is filled a second time and is then ready for the analysis.

5. PROCEDURE

5.1 Immediately, before each series of measurements, test the pump for tightness by inserting an unopened tube and operating the pump. A loss in vacuum on the pump after 30 seconds indicates a leak.

5.1.1 Select the tube range that includes the expected amount of hydrogen sulfide or carbon dioxide present in the sample. Reading accuracy is improved when the stain extends at

at 50% of the tube length. Consider multiple strokes and/or a lower range tube to achieve this length of stain.

5.1.2 Break off tips and insert outlet end of tube snugly into the pump head. Temperature of tube must remain in the 0 - 40°C range throughout the test period.

5.1.3 Place detector tube well into gas sampling container through the tube access and vent (Vent C).

Note 4—Gas sample container must be completely purged of air and with control valve (Valve B) adjusted to maintain a positive flow of gas leaving the tube access and vent (Vent C) for the duration of the test.

5.1.4 Operate the pump to draw a measured volume of gas through the detector tube. Within limits set by manufacturer's instructions, use multiple strokes to maximize length of stain.

5.1.5 Remove the tube from the pump and immediately read the concentration of hydrogen sulfide or carbon dioxide from graduations on the tube or charts supplied with the tubes. The scale reading even with the end of the stain is the approximate hydrogen sulfide or carbon dioxide concentration. Interpolation can be made between scale readings. If the number of strokes used is different from the number specified by the manufacturer for a particular concentration, a correction must be made as follows:

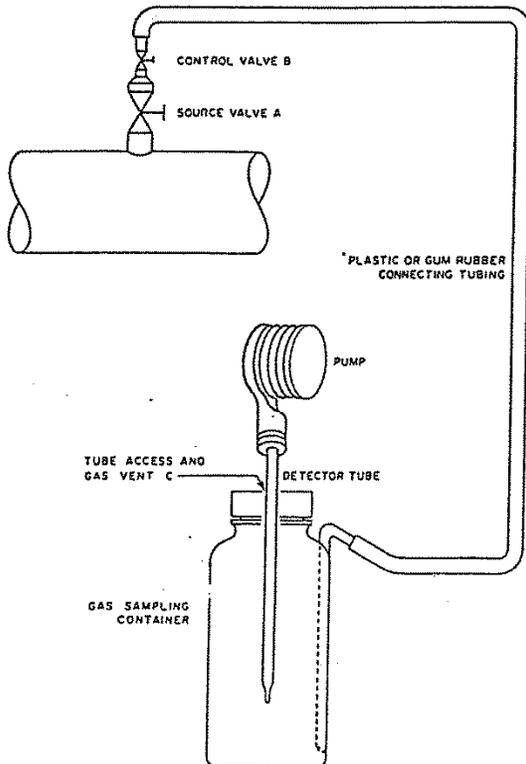


FIG. 1—Sampling manifold to be used with H₂S and CO₂ detector tubes.

$$\text{Corr. H}_2\text{S/CO}_2 \text{ Conc.} = \text{Scale reading} \times \frac{\text{Specified Strokes}}{\text{Actual Strokes}}$$

5.1.6 Record temperature of gas flowing through gas sample container and barometric pressure to provide data for gas volume corrections if required.

6. CALCULATIONS

6.1 Gas volume corrections may be desirable to improve precision of results. The effect of temperature is usually negligible; however, the barometric pressure becomes significant at altitudes above 2,000'. Correction for barometric pressure is done as follows:

$$\text{Corr. Volume \%} = \text{Vol \% (read from tube)} \times \frac{760 \text{ mm Hg}}{\text{Baro. Press. mm Hg}}$$

6.2 Check with manufacturer if it becomes necessary to test at gas temperatures outside the 0 - 40°C range.

7. PRECISION

7.1 The following criteria should be used for judging the acceptability of hydrogen sulfide or carbon dioxide concentration when determined using a "length of stain" detector tube. (95% confidence limit)

7.1.1 *Repeatability*—Duplicate results by the same operator should be considered suspect if they differ by more than the following amounts:

Component	Range of Sample Conc.	Repeatability
H ₂ S	3 - 120 ppmv	10% of amount found
H ₂ S	0.05 - 5 vol %	5% of amount found
CO ₂	0.25 - 10 vol %	2% of amount found

7.1.2 *Reproducibility*—The results submitted by each of two laboratories should be considered suspect if the two results differ by more than the following amounts:

Component	Range of Sample Conc.	Reproducibility
H ₂ S	3 - 120 ppmv	12% of amount found
H ₂ S	0.05 - 5 vol %	7% of amount found
CO ₂	0.25 - 10 vol %	5% of amount found

7.1.3 *Accuracy*—The expected error in measurement of the two commercial tubes (Dräger & Gastec) based on all of Work Group studies is as follows:

Tube Model	Comp.	Sample Conc.	Mean Value	Actual Mean Value	No. of Meas.	% Error
Dräger	H ₂ S	35 ppmv	30 ± 1	35	39	15
Dräger	H ₂ S	481 ppmv	455 ± 33	481	12	7
Dräger	H ₂ S	0.49 Vol%	0.57 ± 0.1	0.49	12	13
Dräger	H ₂ S	5.23 Vol%	4.62 ± 0.4	5.23	12	12
Dräger	CO ₂	0.25 Vol%	0.27 ± 0.02	0.25	12	8
Dräger	CO ₂	4.99 Vol%	5.07 ± 0.2	4.99	12	2
Dräger	CO ₂	10.00 Vol%	9.31 ± 0.8	10.00	12	7
Gastec	H ₂ S	35 ppmv	32 ± 1	35	65	9
Gastec	H ₂ S	481 ppmv	460 ± 10	481	24	4
Gastec	H ₂ S	0.49 Vol%	0.56 ± 0.04	0.49	24	14
Gastec	H ₂ S	5.23 Vol%	5.26 ± 0.3	5.23	24	1
Gastec	CO ₂	0.25 Vol%	0.24 ± 0.04	0.25	24	4
Gastec	CO ₂	4.99 Vol%	4.76 ± 0.2	4.99	24	5
Gastec	CO ₂	10.00 Vol%	9.61 ± 0.4	10.00	24	4

Precision limits shown above were obtained from raw data by 10 to 13 laboratories involved in cooperative testing of eight separate samples. Computations on the raw data were made using ASTM Bulletin RR D-2-1007, "Manual on Determining Precision Data for ASTM Methods on Petroleum Products and Lubricants." The cooperative tests were completed prior to finalizing the method write-up.

Note 6—Cooperative test results indicate a major source of error to be in the variance in response from lot number to lot number of tubes as supplied by the manufacturer. The fidelity of a given lot number of tubes can be

verified by calibrating one or more tubes using a gas with a known concentration of hydrogen sulfide or carbon dioxide. The cooperative test results are shown in Tables I, II and III.

Note 7—Precision data on high levels of hydrogen sulfide and carbon dioxide were obtained from raw data generated by six laboratories in the cooperative testing of six blends of known concentration. All six laboratories used identical tube lot numbers for testing. The cooperative test results are shown in Table IV.

TABLE I
Length of Stain Method for Determination of H₂S in Natural Gas
Reproducibility of Laboratories
Samples Mean/Laboratory

	Lab Fid Gas 9 ppm	Lab Fid Gas 98 ppm	Lab Permeation Tube-44 ppm	Ecospan 88 ppm	Ecospan 18 ppm	Fid Gas 35 ppm	Fid Gas 93 ppm
Lab A	-	100	54	91	15	29	95
Lab B	-	101	42	89	13	28	-
Lab C	11	118	53	-	-	31	93
Lab E	9	-	47	34	14	-	-
Lab F	9	98	48	-	14	-	-
Lab G	-	-	43	79	21	29	93
Lab I	10	110	45	-	-	28	-
Lab J	9	91	43	66	10	29	100
Lab K	9	95	39	80	12	-	-
Lab P	7	98	-	86	9	38	101
Lab Q	-	-	-	-	-	30	93
Labs Participating	7	8	9	7	8	8	6
Mean	9	101	46	85	13.5	30	96
% Error	0	3.1	4.5	3.4	25	14	3.2
Std. Deviation	1.2	8.7	5	4.4	3.6	3	3.7
Probable Error of Mean .....	.31	2.06	1.13	1.12	.87	.78	1.02
Probable Error .....	.81	5.83	3.38	2.96	2.5	2.2	2.50
Std. Deviation from Mean .....	.46	3.05	1.7	1.66	1.2	1.2	1.51
Std. Deviation for 95% Confidence Level	1.1	7.2	3.8	4.07	3.0	2.5	3.9

TABLE II
GPA Sulfur Analysis Work Group H₂S Data, May 11-June 7, 1978

Gas Source	Experimental Data—Detector Tubes				
	PPM H ₂ S	% Error	No. Determinations	PPM H ₂ S (Avg.)	
Ecospan	18	22%	38	14±5	σ = 1.4
Ecospan	88	6%	36	83±8	σ = 2.2
Permeation Tubes	44	5%	73	46±8	σ = 1.6
Field Gas	9±1*	11%	83	10±3	σ = 0.55
Field Gas	98±8*	5%	73	103±13	σ = 2.53
Shamburger Lake Plant Inlet	35±3*	11%	124	31±4	σ = 0.79
Sun-Lateral = 2	221±15	2%	36	226±13	σ = 4.75
Sun M. T. Cole = 21	93±7	9%	39	101±6	σ = 2.2

*Standard Deviation for 95% Confidence Unit)

Precision reflects repeatability of CdSO₄ method according to GPA Standard 2265.

H₂S concentration was apparently continuously increasing during 4-5 hour period of CdSO₄ gas sampling. Determinations by detector tubes, occurred near end of CdSO₄ method sampling and instrumental determinations even later.

TABLE III
Detector Tube H₂S Measurements by Tube Lot Numbers - June 7-8, 1978

	Dräger 5/b Ch29801 5-80 ppm Range							Average
	157091	1050184	1050185	1050186	1058371	1052101	255761	
Lot No.	5	8	4	12	3	4	3	39
No. Measurements	32±1	30±1	29±1	29±2	28±0	29±1	31±1	30±1
PPM H ₂ S	9%	14%	17%	17%	20%	17%	11%	17%
% Error	Gastec 4LL D-80 ppm Range							Average
Lot No.	51215	30710	30912	40113	40809	60116	50217	50913
No. Measurements	19	13	6	9	6	4	4	4
PPM H ₂ S	30±2	28±2	38±1	36±1	36±1	28±1	27±1	30±1
% Error	14%	20%	9%	3%	3%	20%	23%	14%
								9%

Field Gas Source

Shamburger Lake Plant Inlet-35 PPM

TABLE IV
GPA Analysis Work Group Data, July 29, 1985

	H ₂ S			CO ₂			
	Blend No.	1	2	3	1	2	3
Nominal Blended Value (Vol %)	0.05	0.50	5.0	0.25	5.0	10.0	
Laboratory	ppm	Vol %	Vol %	Vol %	Vol %	Vol %	
A	460	0.585	5.27	0.237	4.73	9.78	
B	472	0.583	5.35	0.248	4.82	9.75	
D	448	0.542	5.63	0.250	4.63	8.98	
E	458	0.552	4.78	0.230	4.87	9.93	
F	473	0.620	4.87	0.250	5.22	9.45	
G	437	0.540	4.38	0.286	4.93	9.17	
Mean Value	458	0.570	5.05	0.250	4.87	9.51	
Blended Value	481*	0.490*	5.23*	0.250**	4.99**	10.00**	
Repeatability#	DT	18	0.03	0.16	0.01	0.05	0.32
Reproducibility##	DT	30	0.05	0.38	0.03	0.21	0.34
Repeatability#	GT	11	0.07	0.16	0.01	0.08	0.14
Reproducibility##	GT	14	0.07	0.38	0.01	0.13	0.44

Measured by Iodometric Titration
 ** Measured by Gas Chromatography
 # Precision within Laboratories
 ## Precision between Laboratories

H₂S Conversion

Maximum H₂S concentration for Williams Natural
Gas Specification = $\frac{0.25 \text{ grains H}_2\text{S}}{100 \text{ ft}^3 \text{ methane}}$

$$\text{Conversions } 1 \text{ grain} = 0.0648 \text{ g} \\ 1 \text{ ft}^3 = 28.32 \text{ L}$$

Composition assume 100% CH₄
Ideal gas constant 22.414 L/mol

Step 1 Convert CH₄ to molar volume

$$(100 \text{ ft}^3) \left(\frac{28.32 \text{ L}}{\text{ft}^3} \right) \left(\frac{1 \text{ mol}}{22.414 \text{ L}} \right) = 126.35 \text{ mol CH}_4$$

Step 2 Calculate mass CH₄

$$126.35 \text{ mol CH}_4 \left(\frac{16 \text{ g}}{1 \text{ mol}} \right) = 2,022 \text{ g CH}_4$$

Step 3 - Calculate grams H₂S

$$0.25 \text{ grains} \left(\frac{0.0648 \text{ gm}}{1 \text{ grain}} \right) = 0.0162 \text{ gm H}_2\text{S}$$

Step 4 - PERCENTAGE BASIS (wt)

$$\frac{0.0162 \text{ gm H}_2\text{S}}{2022 \text{ g CH}_4} \times 100 \% = 8.012 \times 10^{-4} \%$$

Step 5 PPM Basis

$$8.012 \times 10^{-6} \times \frac{1000 \text{ mg}}{1 \text{ g}} \times \frac{1000 \text{ g}}{1 \text{ kg}} = \frac{8.0 \text{ mg}}{\text{kg}} = \boxed{8.0 \text{ ppm}}$$

STATEMENT OF BASIS

Permit Reference Documents

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

- 1) Part 70 Operating Permit Application, received September 21, 2012;
- 2) 2013 Emissions Inventory Questionnaire, received April 29, 2014; and
- 3) Construction Permit No. 0997-017A, Issued March 30, 1999
- 4) Construction Permit No. 0998-012, Issued August 19, 1998
- 5) Construction Permit No. 0799-012, Issued July 14, 1999
- 6) Amendment to Permit No. 0997-017A and 0799-012 (Dated October 29, 1999)
- 7) Construction Permit No. 042000-014, Issued April 5, 2000
- 8) EPA Region VII Letter of Approval of Custom Fuel Sampling Schedules, Dated January 7, 1998
- 9) Clean Air Interstate Rule (CAIR) Permit renewal application, received September 21, 2012 and
- 10) Acid Rain Permit renewal application, received November 10, 2014.

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.

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

The provisions of this subpart apply to stationary reciprocating internal combustion engines located at major and area sources of HAP emissions. This subpart has been revised since the previous operating permit was issued and this subpart applies to the Diesel Generators EU0040 through EU0060 and has been included in this operating permit in Permit Condition (EU0040 through EU0060) – 003. This subpart also applies to the Diesel Fire Pump and is in Permit Condition EU0070 – 001.

Other Air Regulations Determined Not to Apply to the Operating Permit

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

10 CSR 10-6.100, Alternate Emission Limits

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

10 CSR 10-6.405 Restriction of Particulate Matter Emissions From Fuel Burning Equipment used for Indirect Heating

This rule does not apply to the installation per 10 CSR 10-6.405(1)(E).

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

The following emission units are subject to this regulation, but as potential PM emissions from each emission unit are less than 0.5 lb/hr, no further monitoring, recordkeeping, or reporting is required at this time: Two 1MMBtu/hr (each) Cyclone Water Bath Heaters Fueled by Natural Gas.

This rule does not apply to EU0030 - Auxiliary Boiler because it is subject to 10 CFR Part 60 Subpart Dc.

Based on the definition of gas fired units, as defined in 40 CFR 72.2, the gas turbines (EU0010 and EU0020) are exempt from the opacity monitoring requirements of CFR 75.14. And also are exempt from the requirements of 10 CSR 10-6.220. Therefore, the applicant is not required to conduct any regular monitoring of opacity from these combustion turbines.

10 CSR 10-6.350 Emission Limitations and Emissions Trading of Oxides of Nitrogen

This rule does not apply to any entity or source subject to and implementing the requirements of 10 CSR 10-6.364 *Clean Air Interstate Rule Seasonal NOx Trading Program* (10 CSR 10-6.350(1)(F)).

10 CSR 10-6.360 Control of NOx Emissions from Electric Generating Units and Non-Electric Generating Boilers

This rule does not apply to any entity or source 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(1)(H)).

Construction Permit History and Revisions

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

Construction Permit #0997-017

Permitted construction of a 250 megawatt combined-cycle gas turbine primarily fueled by natural gas, provided by pipeline with low sulfur fuel oil as a backup fuel source. This permit was replaced by Construction Permit #0997-017A.

Construction Permit #0997-017A

Amended Construction Permit No. 0997-017 to correct discrepancies between the existing construction permit and emission sources being constructed at the site, also a fuel gas water bath heater will be used to maintain a constant gas supply temperature above 62°F.

- 1) Special Condition #9 is not included in the operating permit because it does not meet the requirements of 40 CFR 60.334 (c). §60.334(c) is reporting requirement under §60.7(c) and defines periods of excess emissions that shall be reported. Fuel analysis for sulfur content requirement of this condition is covered by Subpart GG and is incorporated in the permit.
- 2) The initial compliance testing requirements were not included in the operating permit because they have already been completed.
- 3) The references to fuel oil operations for Unit 1 were removed. AECI has not constructed the necessary equipment (i.e. tanks, piping, other ancillaries) to operate this Unit on fuel oil. Since the equipment to operate the Unit with fuel oil was not constructed within 18 months of issuance of this construction permit, the permittee must first apply for and receive a new construction permit before the Unit may be modified to burn fuel oil.

Construction Permit No. 0998-012

Permitted construction of a 33.48 MMBtu/hr auxiliary boiler.

- 1) All requirements associated with the use of #2 fuel oil were not included in the operating permit. Although this construction permit authorized the use of #2 fuel oil as a back up fuel, AECI has not constructed the necessary equipment to operating this unit on fuel oil. Since the necessary equipment was not constructed within 18 months of issuance of this construction permit, the

permittee must first apply for and receive a new construction permit before the unit may be modified to burn fuel oil.

- 2) Initial compliance testing requirements were not included in the operating permit because they have already been completed

Construction Permit No. 0799-012

Permitted construction of a 1,731 MMBtu/hr combined cycle natural gas turbine with a heat recovery steam generator, a cooling tower, and a fuel gas water bath heater.

- 1) Special Conditions No. 6 and No. 10 were not included in Permit Conditions EU0020-001 through EU0020-004 because they are included under Permit Condition EU0020-006 which lists the requirements of 40 CFR Part 60 Subpart GG.
- 2) The initial compliance testing requirements were not included in the operating permit because they have already been completed.

Construction Permit No. 042000-014

Permitted construction of three (each 18.25 MMBtu/hr) diesel generators to provide black start capability for the existing St. Francis Power Plant combined cycled gas turbines Unit 1 and 2. Diesel is the sole fuel combusted in the generators.

The initial compliance testing requirements were not included in the operating permit because they have already been completed.

New Source Performance Standards (NSPS) Applicability

10 CSR 10-6.070, *New Source Performance Standards*

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

The provisions of this subpart applies to each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure less than 15.0 kPa.

The tanks located at the installation are smaller than the threshold level, Kb does not apply.

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

The provisions of this subpart applies to stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired. This Subpart applies to the combustion Turbines EU0010 and EU0020. However 60.332(a)(1) and (a)(2) Standard for nitrogen oxide is not included in this permit since the construction permits (Permit 0997-017A and 0799-012) BACT NO_x limits are more stringent than the NSPS standard.

Permit Conditions EU0010-003 and EU0020-003 contain emission limitations of NO_x from the combined-cycle gas turbines, operation limitations on fuel usage, and monitoring recordkeeping and reporting requirements.

40 CFR Part 60, Subpart Dc – *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.*

The provisions of this subpart applies to steam generating units for which construction, modification, or reconstruction is commenced after June 9, 1989 and has a maximum design heat capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less but greater than or equal to 2.9 MW (10 MMBtu/h).

The Auxiliary Boiler (EU0040) is subject to the requirements of this standard. The emission unit has the ability to use natural gas. This standard does not apply to the heat recovery steam generator (HRSG) unit. The HRSG unit will not be supplied with supplemental firing. The permittee understands that, if for some reason, supplemental firing is added to the HRSG, the applicant would then be required to amend the permit to include its potential applicability to the appropriate NSPS requirements.

40 CFR Part 60, Subpart IIII *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*

This subpart is applicable to manufactures, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

The black start diesel generator EU0100 is subject to and complies with MACT ZZZZ by meeting the requirements of NSPS IIII in Permit Condition EU0100-001.

Maximum Achievable Control Technology (MACT) Applicability

10 CSR 10-6.075, *Maximum Achievable Control Technology Regulations*

40 CFR Part 63, Subpart Q - *National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers*

The provisions of this subpart apply to all new and existing industrial process cooling towers that are operated with chromium-based water treatment chemicals and are either major sources or are integral parts of facilities that are major sources as defined in §63.401. Since the cooling tower at this facility does not use chromium compounds, this subpart is not applicable.

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

The provisions of this subpart apply to stationary combustion turbines located at major sources of HAP emissions. This facility's potential to emit for HAPs is below major levels making it an area source. This subpart does not apply to this facility.

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

The provisions of this subpart apply to stationary reciprocating internal combustion engines located at major and area sources of HAP emissions.

This subpart applies to the Diesel Generators EU0040 through EU0060 and has been included in this operating permit in Permit Condition (EU0040 through EU0060) – 003. This subpart applies to the Diesel Fire Pump and is in Permit Condition EU0070 – 001.

The black start diesel generator EU0100 is subject to and complies with this subpart by meeting the requirements of NSPS IIII in Permit Condition EU0100-001.

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

The provisions of this subpart apply to industrial, commercial, and institutional boilers and process heaters located at major sources of hazardous air pollutants (HAP). This facility's potential to emit for HAPs is below major levels making it an area source. This subpart does not apply to this facility.

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

This subpart does not apply to the boilers at this facility because they combust only natural gas.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

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

Compliance Assurance Monitoring (CAM) Applicability

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

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

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

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

Other Regulatory Determinations

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

The following calculations demonstrate compliance with 10 CSR 10-6.260 when burning fuel oil with a sulfur content less than 0.5%

$$\text{Distillate Oil SO}_2 \text{ emission factor (lbs / MMBtu)} = \frac{142(0.5) \text{ lbs}/10^3 \text{ gal}}{140 \text{ MMBtu} / 10^3 \text{ gal}} = 0.507 \text{ lb/MMBtu}$$

(AP - 42 Table 1.3 - 1(9/98))

$$\text{ppmv SO}_2 = \left(\frac{0.507 \text{ lb}}{\text{MMBtu}} \right) \times \left(\frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left(\frac{\text{ppmw}}{1.660\text{E}^{-7} \text{ lb/scf}} \right) \times \left(\frac{0.45 \text{ ppmv}}{\text{ppmw}} \right) = 133.22 \text{ ppmv}$$

(Appendix A – 7 to Part 60)

$$\text{Distillate Oil SO}_3 \text{ emission factor (lbs / MMBtu)} = \frac{2(0.5) \text{ lbs}/10^3 \text{ gal}}{140 \text{ MMBtu} / 10^3 \text{ gal}} = 0.007 \text{ lb/MMBtu}$$

(AP - 42 Table 1.3 - 1(9/98))

$$\text{ppmv SO}_3 = \left(\frac{0.007 \text{ lb}}{\text{MMBtu}} \right) \times \left(\frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left(\frac{1.602 \times 10^7 \text{ mg ft}^3}{\text{lb m}^3} \right) = 11.088 \frac{\text{mg}}{\text{m}^3}$$

(Appendix A – 7 to Part 60)

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*. It was determined that these rules apply to Combustion Turbine 1 (EU0010) and Combustion Turbine 2 (EU0020). The CAIR Permit for this facility is being issued with this Part 70 Operating Permit Renewal and is included as Attachment E.

Combustion Turbine #1 (EU0010)

The required performance tests (Construction Permit 0997-017 and 0997-017A) were conducted at base load levels above 60%. The test results (see table below) show that the carbon monoxide (CO) limit was not exceeded. In addition, the turbine is expected to operate only at loads above 60%. Therefore, the periodic monitoring to show compliance with the CO limit is to document that the turbine operates above 60% load. During these performance tests, the turbine also showed compliance with the particulate matter less than ten microns (PM₁₀), volatile organic compounds (VOC) and nitrogen oxides (NO_x) BACT limits. Therefore, no further monitoring is required for PM₁₀ and VOC since the turbine is restricted to operating ranges of turbine loads of above 60% due to limitations from special condition no. 24 in the construction permit. NO_x emissions will be continuously monitored using CEMS as required by Subpart GG of 40 CFR Part 60.

Pollutant	Unit	Natural Gas	
		Limit	Test Result (average)
PM10	lb/MMBtu	0.01	0.0025
VOC	lb/MMBtu	0.01	0.002
NOx	ppmv @ 15% O ₂	4.0	3.1
CO	ppmv @ 15% O ₂	10.0	0.5

Combustion Turbine #2

Testing was conducted on June 26-28, 2001 to determine emission rates of PM₁₀, NO_x, CO and VOC as required by the construction permit 0799-012. The test results (see table below) show that the CO limit was not exceeded. In addition, the turbine is expected to operate only at loads above 60%. Therefore, the periodic monitoring to show compliance with the CO limit is to document that the turbine operates above 60% full load. During these performance tests, the turbine also showed compliance with the PM₁₀, VOC and NO_x BACT limits. Therefore, no further monitoring is required for PM₁₀ and VOC since the turbine is restricted to operating ranges of turbine loads of above 60% due to limitations from

special condition no. 24 in the construction permits. NOx emissions will be continuously monitored using CEMS as required by Subpart GG of 40 CFR Part 60.

Pollutant	Unit	Natural Gas	
		Limit	Test Result (average)
PM10	lb/MMBtu	0.003	0.00297
VOC	lb/MMBtu	0.01	0.006
NOx	ppmv @ 15% O ₂	4.5	2.8
CO	ppmv @ 15% O ₂	10.0	7.6

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. An estimate of CO₂ emissions are included in the statement of basis. 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>.

Updated Potential to Emit for the Installation

Pollutant	Potential to Emit (tons/yr) ¹
CO	241.84
GHG - Mass Basis	60,728.17
GHG – CO ₂ e Basis	60,946.32
HAP - combined	10.91
NO _x	248.36
PM ₁₀	59.43
PM _{2.5}	21.59
SO _x	26.25
VOC	125.51

¹Each emission unit was evaluated at 8,760 hours of uncontrolled annual operation unless otherwise noted. The potential to emit for each unit was calculated used emission factors from WebFIRE

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

A draft of the St. Francis Power Plant Part 70 Operating Permit was placed on public notice on April 30, 2015, by the Missouri Department of Natural Resources (MDNR). Comments were received on May 13, 2015 from Mark Smith, Air Permitting and Compliance Branch Chief of the Environmental Protection Agency Region 7. The fifteen comments are presented below as submitted, with the response to each comment by the Air Pollution Control Program (APCP) directly following. The comments are addressed in the order in which they appear within the letter(s).

EPA Comment #1:

The draft operating permit for the AECI -- St. Francis power plant includes multiple permit conditions for the same pollutant for the same emission unit. For example, there are three (3) separate permit conditions with SO_x limitations applicable to emission unit EU0010 (Combustion Turbine #1); two (2) separate permit conditions with SO_x limitations applicable to EU0020 (Combustion Turbine #2); two (2) separate permit conditions with SO_x limitations applicable to EU0030 (Auxiliary Boiler); two (2) separate permit conditions with NO_x limitations applicable to EU0010; two (2) separate permit conditions with NO_x limitations applicable to EU0020; two (2) separate permit conditions with SO_x limitations applicable to diesel generators EU0040, EU0050 and EU0060; and two (2) separate permit conditions with SO_x limitations applicable to diesel fire pump EU0070. When more than one emission standard applies to an emission unit, EPA strongly recommends the permitting authority "streamline" the applicable requirements.

EPA's White Paper #2 provides guidance on "streamlining" multiple applicable requirements; such as SIP rule, NSPS and BACT determinations that apply to the same emission unit(s). This "streamlining" approach allows multiple emission limits to be "streamlined" into the most stringent limit. The monitoring, record keeping and reporting requirements of the "streamlined" limit are usually those of the most stringent limit, provided they assure compliance to the same extent as the subsumed limits.

Therefore, in an effort to eliminate redundant emission limits on emission units, EPA strongly recommends MDNR "streamline" the permit conditions in the AECI -- St. Francis operating permit.

Missouri Air Pollution Control Program Response to EPA Comment #1:

The Operating permit contains limits from construction permits, NSPS, and BACT. Limitations are based on emissions in lb/mmBtu rate and tons per year (or 12 consecutive months). Due to the different limits, periods of time, or emission rates streamlining to a single limitation is not practical. MDNR does not see these separate conditions as redundant and no changes were made to the draft.

EPA Comment #2:

Reporting requirement 1) in nineteen (19) of the permit conditions in the draft operating permit for AECI -- St. Francis require the permittee to report deviations in semi-annual monitoring reports and annual compliance certification, as required by "Section V of this permit." However, there is no Section V in this draft operating permit and the referred to reporting requirements are in Section III. EPA recommends MDNR make the appropriate correction.

Missouri Air Pollution Control Program Response to EPA Comment #2:

The section labels have been corrected.

EPA Comment #3:

The emission limitation in five (5) of the permit conditions, in the draft operating permit for AECI -- St. Francis, require that "good combustion practices be utilized to achieve the emission limitation." The term "good combustion practices" is unacceptably vague. A Part 70 permit must not only contain all applicable requirements; it must be sufficiently clear and specific to ensure that those requirements are enforceable as a practical matter. A permit is enforceable as a practical matter (or practically enforceable) if the permit conditions establish a clear legal obligation for the source and allow compliance to be verified. Providing the source with clear information goes beyond identifying the applicable requirements. It is also important that permit conditions be unambiguous and do not contain language which may intentionally or unintentionally prevent enforcement. Permit conditions must contain sufficient detail to ensure the facility and public clearly understand the obligations in the permit, and how compliance requirements will be evaluated. Therefore, EPA strongly recommends MDNR include the actions that AECI -- St. Francis undertakes to achieve "good combustion practices" and how those actions are measured and recorded for compliance verification.

Missouri Air Pollution Control Program Response to EPA Comment #3:

All of the conditions contain underlying emission limitations that are not to be exceeded by the permittee. The phrase "good combustion practices" is not a limitation but a possible path to meet the underlying condition.

EPA Comment #4:

All of the requirements detailed in each Part 70/Title V operating permit condition must be practically enforceable. EPA's primary guidance on practical enforceability is contained in *"Guidance on Limiting Potential to Emit in New Sources Permitting,"* dated June 13, 1989. One of the important measures of practical enforceability is for the requirements to identify the "who," "what," "where," "when," "how," and "how often." Operation limitation 1) ' in ten (10) of the permit conditions in the draft AECI -- St. Francis Part 70 operating permit are not practically enforceable.

Additionally, the record keeping requirements in seven (7) permit conditions are also not practically enforceable. Finally, reporting requirement 4) in Permit Condition EU0020-003 and the monitoring requirement in Permit Condition EU0020-005 are not practically enforceable. EPA recommends MDNR review all of the requirements in the draft permit conditions and make the necessary revisions to ensure that the "who," "what," "where," "when," "how," and "how often" is addressed.

Missouri Air Pollution Control Program Response to EPA Comment #4:

The requirements in the draft permit are from New Source Review permits incorporating BACT requirements, and NSPS regulations for the installation and language has been modified to clarify the "who," "what," "where," "when," "how," and "how often."

EPA Comment #5:

The customary practice of MDNR is to use the term "permittee" (emphasis added) to identify the individual(s) responsible for compliance with the requirements in the operating permit conditions. The draft Part 70 operating permit for the AECI -- St. Francis identifies a variety of responsible individuals including: owner or operator; person; St. Francis Power Plant; and permittee. EPA recommends MDNR adhere to their customary practice for consistency and use the term "permittee" as the individual with compliance responsibility.

Missouri Air Pollution Control Program Response to EPA Comment #5:

The draft has been corrected as suggested.

EPA Comment #6:

The emission limitation in Permit Condition Plantwide-001 and Permit Condition EU0010-002 establish limits of SO_x "during any 12-month rolling average when burning natural gas." The use of the term "rolling average" (emphasis added) is incorrect. There is no averaging involved, as compliance verification requires the permittee to sum the monthly emissions of SO_x over a continuous 12-month period. Therefore, the correct terminology to be used includes: "12-month rolling sum;" "12-month rolling total;" or "emissions shall not exceed 40 tons in any 12-month consecutive period." EPA recommends MDNR replace the term 12-month rolling average with one of the correct terms.

Missouri Air Pollution Control Program Response to EPA Comment #6:

The draft has been corrected as suggested.

EPA Comment #7:

The emission unit description provided in draft Permit Condition EU0010-001 describes Combustion Turbine #1 as a 170 megawatt (MW) unit. However, Permit to Construct #0997-017 A, which authorized the installation of Combustion Turbine #1, describes the turbine as a 268 megawatt unit. Also, the emission unit description provided in draft Permit Condition EU0020-001 describes Combustion Turbine #2 as a 170 megawatt (MW) unit. However, Permit to Construct #0799-012, which authorized the installation of Combustion Turbine #2, describes the turbine as a 268 megawatt unit. Additionally, the installation descriptions in this draft operating permit indicate the two (2) turbines have a projected output of 268 MW. EPA recommends MDNR correct the emission unit description in Permit Conditions EU0010-001 and EU0020-001.

Missouri Air Pollution Control Program Response to EPA Comment #7:

The unit descriptions for combustion turbines have been corrected.

EPA Comment #8:

The emission limitation note in Permit Condition EU0010-006 appears to indicate that MDNR has attempted to "streamline" the NO_x requirements for emission unit EU0010; Combustion Turbine #1. As detailed in Comment 1.) above, EPA strongly encourages and supports "streamlining." However, if compliance with Permit Condition EU0010-003 will assure compliance with Permit Condition EU0010-006, then it would appear that there is no need to include all of the requirements of Permit Condition EU0010-006, as applicable requirements. EPA's basic principle regarding "streamlining" requires only the most stringent requirement that assure compliance with overlapping applicable requirements be included in the operating permit. Additionally, the included permit condition shall indicate the most stringent limit and include the most assuring monitoring, record keeping, and reporting. The "streamlining" demonstration should include a side-by-side comparisons of the requirements and should be included in the Statement of Basis. EPA strongly supports this "streamlining" attempt and recommends MDNR follow EPA guidance to eliminate multiple permit conditions and include the supporting demonstration in the Statement of Basis.

Missouri Air Pollution Control Program Response to EPA Comment #8:

Missouri APCP agree that Permit Condition EU0010-003 is at least as stringent as EP0010-006 and has removed overlapping requirements.

EPA Comment #9:

Emission limitation 1), in Permit Condition EU0020-003, requires the permittee to "conduct performance tests to demonstrate compliance with the emission limitation." However, the emission limitation fails to identify when the performance test is to be completed; how the performance test is to be conducted; and how often the permittee is to conduct the performance testing. EPA recommends MDNR modify emission limitation 1) in Permit Condition EU0020-003 to improve its practical enforceability.

Missouri Air Pollution Control Program Response to EPA Comment #9:

The phrase "conduct performance tests to demonstrate compliance with the emission limitation" has been removed from Permit Condition EU0020-003 because it referred to initial testing which has been performed and satisfied the requirement.

EPA Comment #10:

The emission limitation note in Permit Condition EU0020-005 appears to indicate that MDNR has attempted to "streamline" the NOx requirements for emission unit EU0020; Combustion Turbine #2. As detailed in Comment 1.) above, EPA strongly encourages and supports "streamlining." However, if compliance with Permit Condition EU0020-003 will assure compliance with Permit Condition EU0020-005, then it would appear that there is no need to include all of the requirements of Permit Condition EU0020-005, as applicable requirements. EPA's basic principle regarding "streamlining" requires only the most stringent requirement that assure compliance with overlapping applicable requirements be included in the operating permit. Additionally, the included permit condition shall indicate the most stringent limit and include the most assuring monitoring, record keeping, and reporting. The "streamlining" demonstration should include a side-by-side comparisons of the requirements and should be included in the Statement of Basis. EPA strongly supports this "streamlining" attempt and recommends MDNR follow EPA guidance to eliminate multiple permit conditions and include the supporting demonstration in the Statement of Basis.

Missouri Air Pollution Control Program Response to EPA Comment #10:

Missouri APCP agree that Permit Condition EU0020-003 is at least as stringent as EP0020-005 and has removed overlapping requirements.

EPA Comment #11:

There are four (4) permit conditions which require the permittee to comply with EPA Region VII's custom fuel content monitoring schedule and associated provisions. This approved custom fuel content monitoring schedule includes specific requirements for the permittee, which should be included as applicable requirements in the operating permit. Therefore, EPA recommends MDNR include the approved custom fuel content monitoring schedule as an attachment to the operating permit. Also, each applicable permit condition should include a reference to the attachment.

Missouri Air Pollution Control Program Response to EPA Comment #11:

The custom fuel monitoring schedule has been added as Attachment F and references has been added to the appropriate permit conditions.

EPA Comment #12:

Permit Condition (EU0040 through EU0060)-003 incorporates applicable requirements associated with 40 CFR part 63, Subpart ZZZZ; *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* (RICE MACT). The RICE MACT standards are based in the horsepower of the reciprocating internal combustion engine (RICE) and different ranges of horsepower have different compliance requirements. The draft AECI -- St. Francis Part 70 operating permit describes EU0040 through EU0060 by including generator output capacity, without any reference to engine horsepower. The public cannot determine the adequacy and completeness of these draft requirements based on generator output. Therefore, EPA recommends MDNR include engine horsepower for EU0040, EU0050 and EU0060; so the public can review permit condition (EU0040 through EU0060)-003 to ensure all applicable requirements have been included.

Additionally, based on data presented in the potential to emit table in the Statement of Basis, AECI - - St. Francis is an area source of hazardous air pollutants (HAPs). Therefore, Permit Condition (EU0040 through EU0060)-003, regarding the RICE MACT, is for area sources. To date, MDNR has not accepted and taken over the compliance responsibilities of the area source RICE MACT and as such relies on the EPA to monitor and manage area source compliance. Therefore, EPA recommends MDNR add specific clarifying language, into Permit Condition (EU0040 through EU0060)-003, to show EPA as the primary compliance information recipient related to HAPs and MDNR as secondary.

Missouri Air Pollution Control Program Response to EPA Comment #12:

Permit Condition (EU0040 through EU0060)-003 has been corrected to Permit Condition (EU0040 through EU0060)-002. Horsepower of the units has been added. The compliance information recipient has been corrected as requested.

EPA Comment #13:

The draft operating permit for AECI -- St. Francis includes a Permit Condition (EU0040 through EU0060)-001 and a Permit Condition (EU0040 through EU0060)-003. This raises a question as to the existence of Permit Condition (EU0040 through EU0060)-002. EPA suggests MDNR provide an explanation of what appears to be an abnormal permit condition numbering scheme.

Missouri Air Pollution Control Program Response to EPA Comment #13:

Permit Condition (EU0040 through EU0060)-003 has been corrected to Permit Condition (EU0040 through EU0060)-002.

EPA Comment #14:

Permit Condition (EU0040 through EU0060)-003 and Permit Condition EU0070-001 both include operational limitations that are applicable "prior to May 3, 2014." It appears that this operating permit will be issued to AECI -- St. Francis after May 3, 2014 and therefore these requirements may not be applicable. Therefore EPA recommends MDNR revisit the "prior to May 3, 2014" requirements and verify that they are remain applicable, following the issuance of this operating permit.

Missouri Air Pollution Control Program Response to EPA Comment #14:

The limitations and requirements that are "prior to May 3, 2014" have been removed.

EPA Comment #15:

Permit Condition EU0100-001 incorporates applicable requirements of 40 CFR part 60, Subpart III; *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* (ICE NSPS). The ICE NSPS applicable requirements are dictated based on the horsepower of the engine and not by the output of the generator; as given in the draft operating permit condition. The public cannot determine the adequacy and completeness of the draft requirements in this permit condition. Therefore EPA recommends MDNR include engine horsepower for EU0100, thereby allowing the public to review and verify that all applicable requirements have been included.

Missouri Air Pollution Control Program Response to EPA Comment #15:

The horsepower rating of the engine has been added to the unit description.

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

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

www.dnr.mo.gov

APR 28 2016

Mr. Brent Ross
St. Francis Power Plant
Route 1, Box 441
Campbell, MO 63933

Re: St. Francis Power Plant, 069-0066
Permit Number: OP2016-011

Dear Mr. Ross:

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

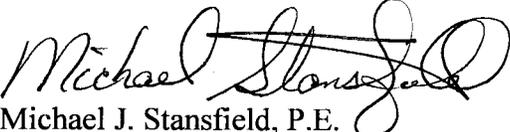
This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request 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:te

Enclosures

c: PAMS File: 2012-09-073