



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

## DEPARTMENT OF NATURAL RESOURCES

[www.dnr.mo.gov](http://www.dnr.mo.gov)

**JAN 29 2016**

Mr. Daniel Hedrick  
James River Power Station  
P.O. Box 551  
Springfield, MO 65807

Re: James River Power Station, 077-0005  
Permit Number: OP2016-003

Dear Mr. Hedrick:

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

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

If you have any questions or need additional information regarding this permit, please contact the Air Pollution Control Program (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:jw

Enclosures

c: PAMS File: 2015-11-056



## 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:** OP2016-003  
**Expiration Date:** JAN 29 2021  
**Installation ID:** 077-0005  
**Project Number:** 2015-11-056

**Installation Name and Address**

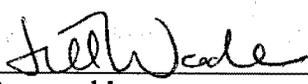
James River Power Station  
P.O. Box 551  
Springfield, MO 65807  
Greene County

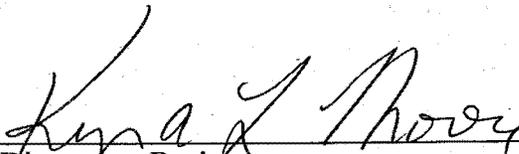
**Parent Company's Name and Address**

City Utilities of Springfield  
301 E. Central, P.O. Box 551  
Springfield MO, 65801

**Installation Description:**

James River Power Station is a steam electric generation facility owned and operated by City Utilities of Springfield, Missouri. The installation consists of five boilers with a gross electrical output capacity of 255 MW. In addition, the installation is equipped with two natural gas/fuel oil-fired combustion turbines with nameplate capacities of 75 and 80 megawatts and a natural gas-fired building heat boiler. The facility has made the decision to discontinue the use of coal as a fuel source and has taken voluntary limits within the operating permit to burn only natural gas in the boilers. The facility has also taken a voluntary limit on HAPs emissions to maintain area source status. This installation is on the list of named sources therefore fugitive emissions are included in the calculations for potential-to-emit.

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

  
Director or Designee  
Department of Natural Resources

JAN 29 2016

Effective Date

## Table of Contents

<b>I. INSTALLATION EQUIPMENT LISTING .....</b>	<b>4</b>
EMISSION UNITS WITH LIMITATIONS.....	4
EMISSION UNITS WITHOUT SPECIFIC LIMITATIONS.....	4
<b>II. PLANT WIDE EMISSION LIMITATIONS.....</b>	<b>6</b>
PERMIT CONDITION PW001 .....	6
10 CSR 10-6.065(6)(C)2.A. ....	6
Federally-enforceable conditions .....	6
PERMIT CONDITION PW002.....	6
10 CSR 10-6.065(6)(C)2.A. ....	6
Federally-enforceable conditions .....	6
<b>III. EMISSION UNIT SPECIFIC EMISSION LIMITATIONS .....</b>	<b>8</b>
PERMIT CONDITION 001.....	8
10 CSR 10-6.065(6)(C)2.A. ....	8
Federally-enforceable conditions .....	8
PERMIT CONDITION 002.....	8
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants .....	8
PERMIT CONDITION 003.....	9
August 17, 2001 Consent Agreement.....	9
PERMIT CONDITION 004.....	12
August 17, 2001 Consent Agreement.....	12
PERMIT CONDITION 005.....	16
10 CSR 10-6.060 Construction Permits Required.....	16
Construction Permit No. 032007-003, Issued March 8, 2007 .....	16
PERMIT CONDITION 006.....	17
10 CSR 10-6.270 Acid Rain Source Permits Required.....	17
PERMIT CONDITION 007.....	18
10 CSR 10-6.360 Clean Air Interstate Rule Annual NOx Trading Program .....	18
10 CSR 10-6.364 Clean Air Interstate Rule Seasonal NOx Trading Program.....	18
10 CSR 10-6.366 Clean Air Interstate Rule SOx Trading Program.....	18
PERMIT CONDITION 008.....	19
40 CFR Part 70 and 97 .....	19
Cross State Air Pollution Rule .....	19
PERMIT CONDITION 009.....	31
10 CSR 10-6.060 Construction Permits Required.....	31
Construction Permit No. 0391-002, Issued March 6, 1991 .....	31
10 CSR 10-6.070 New Source Performance Standards .....	31
40 CFR Part 60 Subpart GG Standards of Performance for Stationary Gas Turbines .....	31
PERMIT CONDITION 010.....	37
10 CSR 10-6.070 New Source Performance Regulations .....	37
40 R Part 60 Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.....	37
PERMIT CONDITION 011 .....	38
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations .....	38
40 CFR Part 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.....	38
PERMIT CONDITION 012.....	41

---

10 CSR 10-6.070 Construction Permits Required.....	41
Construction Permit No. 102006-006, Issued October 10, 2006.....	41
PERMIT CONDITION 013.....	41
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations .....	41
40 CFR Part 63 Subpart CCCCCC National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities .....	41
PERMIT CONDITION 014.....	42
10 CSR 10-6.060 Construction Permits Required.....	42
Construction Permit 032003-017, Issued January 31, 2003 .....	42
PERMIT CONDITION 015.....	44
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants .....	44
<b>IV. CORE PERMIT REQUIREMENTS .....</b>	<b>46</b>
<b>V. GENERAL PERMIT REQUIREMENTS.....</b>	<b>52</b>
<b>VI. ATTACHMENTS .....</b>	<b>58</b>
ATTACHMENT A .....	59
Fugitive Emission Observations.....	59
ATTACHMENT B .....	60
Opacity Emission Observations .....	60
ATTACHMENT C .....	61
Method 9 Opacity Emissions Observations.....	61
ATTACHMENT D .....	62
Inspection/Maintenance/Repair/Malfunction Log.....	62
ATTACHMENT E .....	63
ATTACHMENT F .....	64
ATTACHMENT G.....	65
ATTACHMENT H.....	70
ATTACHMENT I .....	80

## I. Installation Equipment Listing

### EMISSION UNITS WITH LIMITATIONS

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

Emission Unit #	Description of Emission Unit	
EU-04	Boiler 1	E04
EU-05	Boiler 2	E05
EU-06	Boiler 3	E06
EU-07	Boiler 4	E07
EU-08	Boiler 5	E08
EU-11	Combustion Turbine 1	E11
EU-12	Combustion Turbine 2	E12
EU-127	Emergency Fire Pump	E127
EU-255	Paved Haul Road (Propane-Air Facility)	E255(fugitive)
EU-225/226	Water Bath Vaporizers	E225&E226
EU-165	Building Heat Boiler	E165
EU-27	500-gallon gasoline storage tank	E27
EU-160	Dry Fly Ash Exhauster	E160
EU-161	Fly Ash Silo Dry Unloading Spout	E161 (fugitive)
EU-162	Fly Ash Unloading (Paddle Mixer)	E162 (fugitive)

### EMISSION UNITS WITHOUT SPECIFIC LIMITATIONS

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

Description of Emission Source	
Coal storage pile(s)	FE02(fugitive)
587,200-gallon No. 2 fuel oil storage tank, installed 1978	EP10
Vehicle fueling	EP13
1,000-gallon sulfuric acid storage tank	EP15
6,000-gallon sulfuric acid storage tank	EP16
Haul roads	FE17(fugitive)
Space heaters, natural gas, total 1.44 MMBtu/hr	EP18
Solvent cleaning parts washer	EP19
Propane truck unloading (Propane Air Facility)	EP195, EP196, EP197
Natural gas vents	EP21
Lube and loop seal oil system	EP22, EP23
Hydrogen seal oil vents	EP24
Combustion turbine lube oil vents	EP25
Hydrazine tank vents	EP26
Cooling tower	EP29, EP169
Natural gas pilot fuel vents	EP44, EP68
Unit 5 hydrazine pressure relief vents	EP51
Unit 4 loop seal oil extractor	EP78
Maintenance welding	EP124

---

CT-1 & 2 lube oil tank vent	EP130, EP131
Hydrogen Cylinder Storage Area	EP132
Natural gas-fired hot water heater	EP133
Cat. Lube Oil Storage Area	EP134
CO <sub>2</sub> Storage Tank	EP136
200-gallon diesel storage tank	EP140
Ash Pond/Maintenance	EP141
Ash landfill (Bottom and Fly Ash Storage/Disposal)	EP143
Ash Landfill Retention Pond	EP144
Diesel Fuel Pump House	EP145
Natural Gas Regulator	EP146
Asbestos Abatement/Removal Activities	EP147
Transformer Oil (located throughout plant)	EP148
Natural Gas Regulators	EP149
Chlorine Cylinder Storage	EP150, EP153
Oxidant Storage and Injection	EP151, EP152
Paint Storage Area	EP154
2,000-gallon diesel storage tank, installed 2005	EP170
8,000-gallon diesel storage tank, installed 2007	EP171
Propane bulk storage tanks (Propane-Air Facility)	EP200-EP217
Waste Gas Purge (Flare) (Propane Air Facility)	EP235
Methanol Injection (Propane Air Facility)	FE240(fugitive)
Pressure relief valve releases (miscellaneous) (Propane Air Facility)	EP245

## II. Plant Wide Emission Limitations

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

### PERMIT CONDITION PW001

10 CSR 10-6.065(6)(C)2.A.

Federally-enforceable conditions

#### **Emission Limitation:**

The permittee shall be limited, when burning fuel oil, to fuel oils with a sulfur content not to exceed 0.1% sulfur, by weight.

#### **Monitoring/Record Keeping:**

- 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. Fuel oil samples taken by the permittee shall be conducted following delivery of the shipment or lot to the bulk storage facilities. Specifically, the permittee may use one of the total sulfur sampling options and the associated sampling frequency described in Appendix D to Part 75. Attachment E or an equivalent record keeping form shall be used to record all fuel oil samples and analyses required by this voluntary condition.
- 2) All records shall be maintained for five (5) years. They shall be kept onsite for at least two (2) years. They may be kept in either hard-copy form or on computer media.
- 3) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.

#### **Reporting:**

Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted by the permittee semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

### PERMIT CONDITION PW002

10 CSR 10-6.065(6)(C)2.A.

Federally-enforceable conditions

#### **Emission Limitation:**

1. The permittee shall emit less than ten (10) tons individually of any Hazardous Air Pollutants (HAPs) from the installation in any consecutive 12-month period.
2. The permittee shall emit less than twenty-five (25) tons combined of Hazardous Air Pollutants (HAPs) from the installation in any consecutive 12-month period.

**Monitoring/Recordkeeping:**

1. The permittee shall calculate the monthly and rolling 12-month hexane emissions from each emission unit (note: if hexane emissions are less than 10 tons/12-month period then total HAP emissions are less than 25 tons/12-month period).
2. The permittee shall use Attachment F or an equivalent form to track emissions of hexane to demonstrate compliance with the emission limit. Records may be kept in electronically.
3. All records shall be kept for no less than five years and be made available immediately to any Missouri Department of Natural Resources' personnel upon request.

**Reporting:**

1. If at any time the 12-month emission limit of 10 tons individual or 25 tons combined should be exceeded or a malfunction occur which could possibly cause exceedance the permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the exceedance.
2. The permittee shall report any deviations from the monitoring/recordkeeping and reporting requirements of this permit condition in the annual monitoring report and compliance certification required by Section V of this permit.

### III. Emission Unit Specific Emission Limitations

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

**PERMIT CONDITION 001**  
 10 CSR 10-6.065(6)(C)2.A.  
 Federally-enforceable conditions

Emission Unit	Description
EU-04	Boiler 1: Natural Gas Fired; MHDR 250 MMBtu/hr; emits through common stack with EU-05; boiler installed in 1957
EU-05	Boiler 2: Natural Gas Fired; MHDR 250 MMBtu/hr;; emits through common stack with EU-04; boiler installed in 1957
EU-06	Boiler 3: Natural Gas Fired; MHDR 496 MMBtu; equipped with ultra low-NOx burner design with over-fire air; boiler installed in 1960
EU-07	Boiler 4: Natural Gas Fired; MHDR 600 MMBtu; equipped with an ultra low-NOx burner design with over-fire air; boiler installed in 1964.
EU-08	Boiler 5: Natural Gas Fired; MHDR 1000 MMBtu; equipped an ultra low-NOx burner design with over-fire air; boiler installed in 1970.

**Operational Limitation:**

The permittee is limited to burning 100% natural gas in Boilers #1 through 5.

**Monitoring/Recordkeeping:**

The permittee shall maintain fuel usage records verifying that natural gas is the only fuel combusted in Boilers #1 through 5.

**Reporting:**

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

**PERMIT CONDITION 002**  
 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Unit	Description
EU-04	Boiler 1: Natural Gas Fired; MHDR 250 MMBtu/hr; emits through common stack with EU-05; boiler installed in 1957
EU-05	Boiler 2: Natural Gas Fired; MHDR 250 MMBtu/hr;; emits through common stack with EU-04; boiler installed in 1957
EU-06	Boiler 3: Natural Gas Fired; MHDR 496 MMBtu; equipped with ultra low-NOx burner design with over-fire air; boiler installed in 1960

EU-07	Boiler 4: Natural Gas Fired; MHDR 600 MMBtu; equipped with an ultra low-NOx burner design with over-fire air; boiler installed in 1964.
EU-08	Boiler 5: Natural Gas Fired; MHDR 1000 MMBtu; equipped an ultra low-NOx burner design with over-fire air; boiler installed in 1970.
EU-165	Natural Gas Fired Building Heat Boiler; MHDR is 15.0 MMBtu/hr; to be installed 2014.
EU-225 and EU-226	Natural Gas Fired Water Bath Vaporizers for propane-air peaking station; MHDR is 14.8 MMBtu/hr each; Installed in 2007; Manufacturer: Power Flame Burner

**Emission Limitation:**

- 1) The permittee shall not cause or permit emissions to be discharged into the atmosphere from any **existing** source any visible emissions with an opacity greater than 40%.  
*Existing source*-any equipment, machine, device, article, contrivance or installation installed or in construction in the outstate Missouri area on February 24, 1971, or in the Springfield metropolitan area on September 24, 1971.
- 2) The permittee shall not cause or permit emissions to be discharged into the atmosphere from any **new** source (EU-165, EU-225 and EU226) any visible emissions with an opacity equal to or greater than 20%.
- 3) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

**Monitoring/Recordkeeping/Reporting:**

Compliance with Permit Condition 001 ensures compliance with the opacity emission limitations for these units. No further monitoring/recordkeeping/reporting is required.

<b>PERMIT CONDITION 003</b> August 17, 2001 Consent Agreement
--

Emission Unit	Description
EU-04	Boiler 1: Natural Gas Fired; MHDR 250 MMBtu/hr; emits through common stack with EU-05; boiler installed in 1957
EU-05	Boiler 2: Natural Gas Fired; MHDR 250 MMBtu/hr;; emits through common stack with EU-04; boiler installed in 1957

**Emission Limitations:**

- 1) James River Power Station (JRPS) fossil-fired steam units (EU-04 and EU-05) shall not emit to the atmosphere any gases with a sulfur dioxide (SO<sub>2</sub>) content in excess of the following limits, based on a twenty-four (24) hour block average. A twenty-four (24) block averaging period begins and ends at midnight of each operating day. [2001 Consent Agreement, Paragraph 1]

EU ID #	Description	Sulfur Limit (lb/MMBtu heat input)
EU-04	Boiler 1	1.5
EU-05	Boiler 2	1.5

**Operational Limitation/Monitoring:**

- 1) The permittee shall comply with the stipulated emission rates by burning fuels with a reduced sulfur content. Compliance with the numeric limitations shall be based on unit by unit demonstration of emission rates. The coal blend consistency requirement is only required if City Utilities chooses to blend different coal types (specifically bituminous with subbituminous coal blends). [2001 Consent Agreement, Paragraph 2]
  - a) The permittee shall operate and maintain the belt scales used to document coal blend consistency, as describe in Appendix I (see Attachment G), in accordance with accepted industry practice for quality assurance and quality control, including but not limited to the manufacturer's recommended QA/QC practices. [2001 Consent Agreement, Paragraph 2.1]
  - b) Boiler 3 (EU-06) CEMS will serve as a surrogate monitor for Boiler 1 (EU-04) and Boiler 2 (EU-05) by applying a rebuttable presumption regarding coal characteristics and emissions equivalence. The permittee shall modify the plant data system to report an estimate SO<sub>2</sub> emission rate for Boiler 1 (EU-04) and Boiler 2 (EU-05) based on the contemporaneous emission rate for Boiler 3 (EU-06) (if operating) or Boiler 4 (EU-07). The data system will adjust the Boiler 1 (EU-04) and Boiler 2 (EU-05) emission data for differences in natural gas firing between the CEMS and non-CEMS units. [2001 Consent Agreement, Paragraph 2.3]
    - i) In the event Boiler 1 (EU-04) or Boiler 2 (EU-05) operates when there are no contemporaneous data available for Boiler 3 (EU-06) and Boiler 4 (EU-07) (e.g. the larger units are off-line or CEMS are out of service), the permittee will demonstrate compliance through daily coal sample analyses. This will not apply to brief periods of CEMS unavailability due to quality assurance activities. [2001 Consent Agreement, Paragraph 2.3.1]
    - ii) If the 24-average SO<sub>2</sub> emission rate recorded by CEMS ever exceeds 1.25 pounds per million Btu, the permittee shall perform a thirty (30)-day equivalence test to demonstrate that the accuracy and precision of CEMS data are sufficient to meet the confidence criteria for the rebuttable presumption. [2001 Consent Agreement, Paragraph 2.3.2]
    - iii) Additional technical provisions necessary to implement this paragraph are detailed in Appendix I (see Attachment G), affixed hereto and included as part of the 2001 Consent Agreement. [2001 Consent Agreement, Paragraph 2.3.3]
- 2) Any instance of excess emissions during periods of startup, shutdown, or malfunction shall be governed by the provisions of 10 CSR 10-6.050. These terms shall have the same meaning as given in the Missouri clean air regulations at 10 CSR 10-6.020. Moreover, MDNR recognizes the need for a short period of 100% bituminous coal as a purge fuel for safety purposes when these units are started and shut down. [2001 Consent Agreement, Paragraph 3]
- 3) In the event that any of the permanent monitors deployed near James River Power Station are challenged by air contaminant levels in excess of 75% of the primary or secondary standard, based on respective averaging times, the permittee shall provide two additional auxiliary monitoring stations, subject to the following: [2001 Consent Agreement, Paragraph 7]
  - a) The auxiliary monitors shall meet the same criteria as listed for the permanent monitors; [2001 Consent Agreement, Paragraph 7.1]
  - b) The auxiliary monitors shall be installed and operated by the permittee for a period of eight calendar quarters which includes at least two consecutive calendar years. At the end of the period, the monitors shall be removed from service if there are no monitored episodes greater than 75% of the primary and secondary ambient SO<sub>2</sub> standards. Removal from service under these conditions shall terminate the permittee's auxiliary monitoring requirement under the 2001 Consent Agreement. [2001 Consent Agreement, Paragraph 7.2]

- 4) Following monitor installation, the permittee shall be responsible for monitor maintenance and quality assurance activities. The permittee shall have direct access to its monitoring data through direct telephone hookup. The permittee will provide dial-up modem access to their monitors to the MDNR in a format compatible with the existing MDNR ambient data collection system. City Utilities shall develop a Quality Assurance Plan and a Standard Operating Plan for MDNR approval. QA protocols must be at least as stringent as the QA requirements of 40 CFR Part 58 and Quality Assurance Handbook for Air Pollution Measurements Systems. City Utilities and MDNR shall inform each other of all quality assurance activities performed on their respective monitors in the vicinity of James River Power Station. Each party shall provide the other with adequate notice and opportunity to observe such quality assurance activities. [2001 Consent Agreement, Paragraph 8]
- 5) MDNR shall incorporate the compliance, monitoring, reporting, and recordkeeping provisions of the 2001 Consent Agreement into this Title V operating permit for the James River Power Station. MDNR shall also submit the 2001 Consent Agreement to the Missouri Air Conservation Commission for incorporation into the Missouri State Implementation Plan. [2001 Consent Agreement, Paragraph 9]
- 6) 2001 Consent Agreement Paragraph 10 is listed in Permit Condition 5.
- 7) If, at any time after the effective date of the 2001 Consent Agreement, either MDNR or U.S. EPA find it necessary to impose more stringent emission limits or monitoring requirements at James River Power Station than those contained in the 2001 Consent Agreement, the 2001 Consent Agreement will terminate automatically on the effective date of the more stringent requirements. [2001 Consent Agreement, Paragraph 11]

**Record Keeping:**

- 1) The permittee shall maintain emissions monitoring data, fuel analysis data, fuel consumption record, and CEMS QA/QC records for five (5) years from the date collected or recorded. [2001 Consent Agreement, Paragraph 5]
- 2) All records shall be kept in a form suitable for inspection and be made available immediately to the Department of Natural Resources' personnel upon request.

**Reporting:**

- 1) The permittee shall submit quarterly excess emissions reports to the MDNR. Quarterly reports shall identify any twenty-four hour period wherein the emission rate from Boiler 1 (EU-04) and Boiler 2 (EU-05), exceeded the applicable SO<sub>2</sub> equivalence assurance threshold of 1.25 lb/MMBtu, together with the magnitude and duration of excess emissions. The report also will identify any period of unit operation in which the corresponding CEMS is out of service, as defined under 40 CFR Part 75. In addition, the report shall include the following certification statement:

“I hereby certify that the emission data collected and reported herein for Boiler 1 (EU-04) and/or Boiler 2 (EU-05) are representative of the actual emissions from said units. For every boiler operating day during the period, the sulfur-emitting characteristics of coal introduced to Boiler 1 (EU-04) and Boiler 2 (EU-05) were essentially equivalent to the corresponding characteristics for the surrogate CEMS-equipped unit, unless noted otherwise in this report. The criteria defining equivalence of coal quality, coal blend percentages, and consistency within the storage pile, as described in Appendix I of the 2001 Consent Agreement between City Utilities and MDNR, were met for this quarter. This certification is based on my personal inquiry of persons responsible for these data, and over whom I have supervisory authority.”

The certification must be signed by a responsible City Utilities representative with the title of Director – Power Generation. Quarterly excess emissions reports shall be due on or before the

thirtieth (30<sup>th</sup>) day following each calendar quarter, beginning with the calendar quarter during which the 2001 Consent Agreement became effective. [2001 Consent Agreement, Paragraph 4]

- 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 ten (10) days after any deviations/exceedance of this permit condition.

**PERMIT CONDITION 004**  
August 17, 2001 Consent Agreement

Emission Unit	Description
EU-06	Boiler 3: Natural Gas Fired; MHDR 496 MMBtu; equipped with ultra low-NOx burner design with over-fire air; boiler installed in 1960
EU-07	Boiler 4: Natural Gas Fired; MHDR 600 MMBtu; equipped with an ultra low-NOx burner design with over-fire air; boiler installed in 1964.
EU-08	Boiler 5: Natural Gas Fired; MHDR 1000 MMBtu; equipped an ultra low-NOx burner design with over-fire air; boiler installed in 1970.

**Emission Limitations:**

James River Power Station (JRPS) fossil-fired steam units (EU-06 through EU-08) shall not emit to the atmosphere any gases with a sulfur dioxide (SO<sub>2</sub>) content in excess of the following limits, based on a twenty-four (24) hour block average. A twenty-four block averaging period begins and ends at midnight of each operating day. [2001 Consent Agreement, Paragraph 1]

EU ID #	Description	Sulfur Limit (lb/MMBtu heat input)
EU-06	Boiler 3	1.5
EU-07	Boiler 4	1.5
EU-08	Boiler 5	2.0

**Operational Limitation/Monitoring:**

- 1) The permittee shall maintain and operate a continuous emission monitoring system (CEMS) in accordance with all the requirements of 40 CFR Part 75 to monitor SO<sub>2</sub> emissions. Results shall be recorded on an automated Data Acquisition Handling System (DAHS).
- 2) The permittee shall ensure that each CEMS meets the equipment, installation, and performance specifications in Appendix A to 40 CFR Part 75; and is maintained according to the quality assurance and quality control procedures in Appendix B to 40 CFR Part 75.
- 3) The permittee shall ensure that all CEMS are in operation and monitoring unit emissions at all times that the affected units (EU-06 through EU-08) combusts any fuel except during periods of calibration, quality assurance, or preventative maintenance, as well as, periods of repair, periods of backups of data from the DAHS or recertification.
- 4) The permittee shall ensure that each CEMS is capable of completing a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute interval. The permittee shall reduce all SO<sub>2</sub> emissions data to hourly averages. Hourly averages shall be computed using at least one data point in each fifteen minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. Notwithstanding this requirement, an hourly average may be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour) if data are unavailable as a result of

the performance of calibration, quality assurance, or preventive maintenance, or backups of data from the DAHS, or recertification. The permittee shall use all valid measurements or data points collected during an hour to calculate the hourly averages. All data points collected during an hour shall be, to the extent practicable, evenly spaced over the hour.

- 5) The permittee shall prepare and maintain a monitoring plan in accordance with 40 CFR 75.53. A monitoring plan shall contain sufficient information on the CEMS to demonstrate that all unit SO<sub>2</sub> emissions are monitored and reported.
- 6) Whenever the permittee makes a replacement, modification, or change in the certified CEMS, including a change in the automated DAHS or in the flue gas handling system, that affects information reported in the monitoring, then the permittee shall update the monitoring plan, by the applicable deadline specified in 40 CFR 75.62.
- 7) City Utilities shall comply with the stipulated emission rates by burning fuels with a reduced sulfur content. Compliance with the numeric limitations shall be based on unit by unit demonstration of emission rates. The coal blend consistency requirement is only required if City Utilities chooses to blend different coal types (specifically bituminous with subbituminous coal blends). [2001 Consent Agreement, Paragraph 2]
  - a) City Utilities shall operate and maintain the belt scales used to document coal blend consistency, as described in Appendix I (see Attachment G), in accordance with accepted industry practice for quality assurance and quality control, including but not limited to the manufacturer's recommended QA/QC practices. [2001 Consent Agreement, Paragraph 2.1]
  - b) The existing Part 75 continuous emission monitoring system (CEMS) will be used to demonstrate compliance for Boilers 3, 4, and 5 (EU-06 through EU-08). City Utilities shall modify the existing data acquisition and reporting systems as necessary to calculate twenty-four hour block averages for reporting purposes. [2001 Consent Agreement, Paragraph 2.2]
  - c) 2001 Consent Agreement, Paragraphs 2.3, 2.3.1, 2.3.2, and 2.3.3 are listed in Permit Condition 006.
- 8) Any instance of excess emissions during periods of startup, shutdown, or malfunction shall be governed by the provisions of 10 CSR 10-6.050. These terms shall have the same meaning as given in the Missouri clean air regulations at 10 CSR 10-6.020. Moreover, MDNR recognizes the need for a short period of 100% bituminous coal as a purge fuel for safety purposes when these units are started and shut down. [2001 Consent Agreement, Paragraph 3]
- 9) 2001 Consent Agreement, Paragraphs 7, 7.1, 7.2, and 8 are listed in Permit Condition 006.
- 10) These *Force Majeure* provisions shall apply to fuel emergencies on Boiler 5 (EU-08). Under certain circumstances beyond the control of City Utilities, the alternate emission limit specified in Paragraph 10.7 of the 2001 Consent Agreement shall apply temporarily to James River Unit 5 (EU-08). This adjustment shall be for the sole purpose of allowing City Utilities to conserve its lowest emitting fuel for use in Units 1 through 4 (EU-04 through EU-07) and shall be implemented only if all of the following conditions are met: [2001 Consent Agreement, Paragraph 10]
  - a) The need for the adjustment is attributable directly and solely to a temporary emergency conversion to an alternative fuel containing constituents that prevent compliance with the otherwise applicable emission limitations ("nonconforming fuel"). [2001 Consent Agreement, Paragraph 10.1]
  - b) The conversion to nonconforming fuel is necessary to avoid a significant disruption of power supply from City Utilities to its customers, and an alternative power source is not reasonably available for the duration of the emergency. For the purposes of this paragraph, "reasonably available" shall mean available to City Utilities at a reasonable delivered price. [2001 Consent Agreement, Paragraph 10.2]

- c) Alternative sources of fuel, which would enable City Utilities to continue operation in compliance with the emission limitation, are not reasonably available in quantities that would allow continued compliance on all five units. For the purpose of this paragraph, “reasonably available” shall mean available to City Utilities at a reasonable delivered price. [2001 Consent Agreement, Paragraph 10.3]
- d) City Utilities is unable to make reasonable changes in its method of operation during the emergency period to comply with the emission limit during the emergency. [2001 Consent Agreement, Paragraph 10.4]
- e) The disruption of a fuel supply of conforming fuel (fuel which would enable City Utilities to comply with the emission limitations) is unforeseeable and unavoidable despite use of the best effects by City Utilities to ensure a supply of conforming fuel. [2001 Consent Agreement, Paragraph 10.5]
- f) The alternate emission limitation shall continue to apply only so long as the normal supply of conforming fuel is disrupted due to the emergency conditions, and City Utilities resumes compliance with the otherwise applicable emission limitations immediately after resumption of delivery of conforming fuel to James River Power Station. [2001 Consent Agreement, Paragraph 10.6]
- g) During such an event, the following conditions shall apply: [2001 Consent Agreement, Paragraph 10.7]
  - i) The alternate emission limit applicable to James River Unit 5 (EU-08) shall be 3.1 pounds SO<sub>2</sub> per million Btu. Any exceedance of this alternate emission limit shall constitute a violation of the 2001 Consent Agreement, except as may be provided for under paragraph 3 of the consent agreement. [2001 Consent Agreement, Paragraph 10.7.1]
  - ii) City Utilities shall notify MDNR in writing that a fuel emergency condition exists and obtain written approval from MDNR before charging the Unit 5 bunkers with nonconforming fuel for the purpose of complying with the alternate limit. Notification will also be made to MDNR’s twenty-four hour emergency response telephone line. Written notifications and approvals may be in the form of traditional mail, facsimile transmission, electronic mail, or mutually verifiable means of documentation. Due to the emergency nature of the events covered herein, MDNR shall respond to City Utilities within thirty-six (36) hours of receiving written notification. [2001 Consent Agreement, Paragraph 10.7.2]
  - iii) In order to satisfy Paragraphs 10.2, 10.3 and 10.4 of the 2001 Consent Agreement, City Utilities shall prepare a written justification for each claimed fuel emergency incident. The justification shall be submitted to DNR, as stated in Paragraph 10.7.2 of the consent agreement, to allow a determination of reasonableness on a case-by-case basis by MDNR. [2001 Consent Agreement, Paragraph 10.7.3]
  - iv) This notification must include a description of the emergency, including the reason for the fuel shortage, the quantities of low-sulfur and high-sulfur coal in storage, steps taken by City Utilities to avoid the emergency condition, and an estimate of the duration of the fuel shortage. [2001 Consent Agreement, Paragraph 10.7.4]
  - v) This alternate emission limitation applies only to Unit 5 (EU-08) and will not excuse City Utilities from compliance with the emission limits for Units 1 through 4 (EU-04 through EU-07) nor any other provision of 2001 Consent Agreement. [2001 Consent Agreement, Paragraph 10.7.5]
  - vi) This provision on *Force Majeure* shall not excuse City Utilities from compliance with the ambient SO<sub>2</sub> provision of 10 CSR 10-6.260(4). [2001 Consent Agreement, Paragraph 10.7.6]

11) If, at any time after the effective date of the 2001 Consent Agreement, either MDNR or USEPA find it necessary to impose more stringent emission limits or monitoring requirements at JRPS than those contained in the 2001 Consent Agreement, the 2001 Consent Agreement will terminate automatically on the effective date of the more stringent requirements. [2001 Consent Agreement, Paragraph 11]

**Record Keeping:**

- 1) The permittee shall maintain a file on-site of all measurements, data, reports, and other information required by 40 CFR 75.53, 40 CFR 75.57 and 40 CFR 75.59 and the 2001 Consent Agreement. Records include the following: [2001 Consent Agreement, Paragraph 5]
  - a) Fuel analysis data;
  - b) Total fuel consumed during the control period;
  - c) The total heat input for each emissions unit during the control period;
  - d) Reports of all stack testing conducted;
  - e) All other data collected by a CEMS necessary to convert the monitoring data to the units of the applicable emission limitation;
  - f) All performance evaluations conducted in the past year;
  - g) All monitoring device calibration checks including CEMS QA/QC data;
  - h) All monitoring system, monitoring device and performance testing measurements;
  - i) Records of adjustments and maintenance performed on monitoring systems and devices; and
  - j) A log identifying each period during which the CEMS or alternate procedure was inoperative, except for zero and span checks, and the nature of the repairs and adjustments performed to make the system operative.
- 2) All records shall be kept in a form suitable for inspection for at least five (5) years and be made available immediately to the Department of Natural Resources' personnel upon request.

**Reporting:**

- 1) The permittee shall submit all quarterly reports required by 40 CFR Part 75. These reports are due within thirty (30) days after the end of each calendar quarter. The quarterly reports must include the following essential information:
  - a) Facility information in accordance with 40 CFR 75.64(a)(1);
  - b) Hourly and cumulative emissions data;
  - c) Hourly unit operating information (e.g., load, heat input rate, operating time, etc.);
  - d) Monitoring plan information;
  - e) Results of required quality assurance tests (e.g., daily calibrations, linearity checks, RATAs, etc.); and
  - f) Certification statements from the Designated Representative or Authorized Account Representative (or the Alternate Representative), attesting to the completeness and accuracy of the data.
- 2) The permittee shall submit quarterly excess emissions reports to the MDNR. Quarterly reports shall identify any twenty-four (24) hour period wherein the emission rate from any unit exceeded the applicable SO<sub>2</sub> standard, together with the magnitude and duration of excess emissions. The report also will identify any period of unit operation in which the corresponding CEMS is out of service, as defined under 40 CFR Part 75. Quarterly excess emissions reports shall be due on or before the thirtieth (30<sup>th</sup>) day following each calendar quarter, beginning with the calendar quarter during which 2001 Consent Agreement became effective. [2001 Consent Agreement, Paragraph 4]

- 3) The permittee shall report to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any deviations/exceedance of this permit condition.
- 4) The permittee shall report any deviations from the monitoring/recordkeeping and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

**PERMIT CONDITION 005**  
10 CSR 10-6.060 Construction Permits Required  
Construction Permit No. 032007-003, Issued March 8, 2007

Emission Unit	Description
EU-06	Boiler 3: Natural Gas Fired; MHDR 496 MMBtu; equipped with ultra low-NOx burner design with over-fire air; boiler installed in 1960
EU-07	Boiler 4: Natural Gas Fired; MHDR 600 MMBtu; equipped with an ultra low-NOx burner design with over-fire air; boiler installed in 1964.
EU-08	Boiler 5: Natural Gas Fired; MHDR 1000 MMBtu; equipped an ultra low-NOx burner design with over-fire air; boiler installed in 1970.

**Emission Limitations:**

Standards of Performance for Best Available Control Technology (BACT) for Carbon Monoxide (CO)

- 1) James River Power Station shall not emit more than 0.35 pounds of CO per million British Thermal Units (lb/MMBTU) of heat input each from Unit 3, Unit 4, and Unit 5 based on a 30-day rolling average. This limit is exclusive of emissions occurring during start-up, shutdown and malfunction. [Special Condition 1A]
- 2) James River Power Station shall not emit more than 3,213 tons per year of CO combined from Unit 3, Unit 4, and Unit 5. This limit is inclusive of emissions during start-up, shutdown and malfunction. [Special Condition 1B]

**Monitoring:**

James River Power Station shall operate continuous CO emission monitors to measure, record and report CO emissions compliance with the limitations. [Special Condition 1C]

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

**Record Keeping:**

James River Power Station shall maintain all records required by this permit, on-site, for the most recent 60 months of operation and shall make such records available immediately to any Missouri Department of Natural Resources' personnel upon request. [Special Condition 3]

**Reporting:**

James River Power Station shall report CO emissions in their semi-annual monitoring (SAM) report and in the annual compliance certification (ACC) statement. [Special Condition 4]

<b>PERMIT CONDITION 006</b> 10 CSR 10-6.270 Acid Rain Source Permits Required
--

Emission Unit	Description
EU-06	Boiler 3: Natural Gas Fired; MHDR 496 MMBtu; equipped with ultra low-NOx burner design with over-fire air; boiler installed in 1960
EU-07	Boiler 4: Natural Gas Fired; MHDR 600 MMBtu; equipped with an ultra low-NOx burner design with over-fire air; boiler installed in 1964.
EU-08	Boiler 5: Natural Gas Fired; MHDR 1000 MMBtu; equipped an ultra low-NOx burner design with over-fire air; boiler installed in 1970.
EU-12	Combustion Turbine 2: combustion turbine; dual fueled-natural gas and No. 2 fuel oil; MHDR 973 MMBtu; equipped with water injection (CD08); turbine installed in 1991.

**Emission Limitation:**

The permittee shall obtain an Acid Rain Source Permit for EU-06 through EU-08 and EU-12 pursuant to Title IV of the Clean Air Act.

A Phase II permit (Missouri Department of Natural Resources project 2013-10-009, ORIS Code 2161) is being issued to the permittee in conjunction with this Title V permit. (See Attachment H) Sulfur dioxide (SO<sub>2</sub>) limitations and nitrogen oxides (NO<sub>x</sub>) requirements are referenced in the existing 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 Department of Natural Resources' personnel upon request.

**Reporting:**

- 1) Annual Compliance Certification.
- 2) 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 007**

10 CSR 10-6.360 Clean Air Interstate Rule Annual NOx Trading Program  
10 CSR 10-6.364 Clean Air Interstate Rule Seasonal NOx Trading Program  
10 CSR 10-6.366 Clean Air Interstate Rule SOx Trading Program

Emission Unit	Description
EU-06	Boiler 3: Natural Gas Fired; MHDR 496 MMBtu; equipped with ultra low-NOx burner design with over-fire air; boiler installed in 1960
EU-07	Boiler 4: Natural Gas Fired; MHDR 600 MMBtu; equipped with an ultra low-NOx burner design with over-fire air; boiler installed in 1964.
EU-08	Boiler 5: Natural Gas Fired; MHDR 1000 MMBtu; equipped an ultra low-NOx burner design with over-fire air; boiler installed in 1970.
EU-11	Combustion Turbine 1: combustion turbine; dual fueled-natural gas and No. 2 fuel oil; MHDR 991 MMBtu; equipped with water injection (CD07); turbine installed in 1989.
EU-12	Combustion Turbine 2: combustion turbine; dual fueled-natural gas and No. 2 fuel oil; MHDR 973 MMBtu; equipped with water injection (CD08); turbine installed in 1991.

**Emission Limitation:**

The permittee shall obtain a CAIR Source Permit for the Boiler Nos. 3, 4 and 5 and combustion turbines GT1 and GT2 (EU-06 through EU08, EU-11 and EU-12).

A CAIR Permit (Missouri Department of Natural Resources project 2013-10-010, ORIS Code 2161) is being issued to the permittee in conjunction with this Title V permit. (See Attachment I)

**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:**

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 008**  
40 CFR Part 70 and 97  
Cross State Air Pollution Rule

Emission Unit	Description
EU-06	Boiler 3: Natural Gas Fired; MHDR 496 MMBtu; equipped with ultra low-NOx burner design with over-fire air; boiler installed in 1960
EU-07	Boiler 4: Natural Gas Fired; MHDR 600 MMBtu; equipped with an ultra low-NOx burner design with over-fire air; boiler installed in 1964.
EU-08	Boiler 5: Natural Gas Fired; MHDR 1000 MMBtu; equipped an ultra low-NOx burner design with over-fire air; boiler installed in 1970.
EU-11	Combustion Turbine 1: combustion turbine; dual fueled-natural gas and No. 2 fuel oil; MHDR 991 MMBtu; equipped with water injection (CD07); turbine installed in 1989.
EU-12	Combustion Turbine 2: combustion turbine; dual fueled-natural gas and No. 2 fuel oil; MHDR 973 MMBtu; equipped with water injection (CD08); turbine installed in 1991.

The TR subject unit(s), and the unit-specific monitoring provisions, at this source are identified in the following table(s). These unit(s) are subject to the requirements for the TR NO<sub>x</sub> Annual Trading Program, TR NO<sub>x</sub> Ozone Season Trading Program, and TR SO<sub>2</sub> Group 1 Trading Program.

Parameter	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR Part 75, Subpart B (for SO <sub>2</sub> monitoring) and 40 CFR Part 75, Subpart H (for NO <sub>x</sub> monitoring)	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, Appendix D	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR Part 75, Appendix E	Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19	EPA-approved alternative monitoring system requirements pursuant to 40 CFR Part 75, Subpart E
SO <sub>2</sub>	EU-06, EU-07 & EU-08	EU-11 & EU-12	-----	N/A	N/A
NO <sub>x</sub>	-----	-----	EU-11 & EU-12	N/A	N/A
Heat Input	N/A	-----	-----	N/A	N/A

- 1) The above description of the monitoring used by a unit does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 40 CFR 97.430 through 97.435 (TR NO<sub>x</sub> Annual Trading Program), 97.530 through 97.535

- (TR NO<sub>x</sub> Ozone Season Trading Program), and 97.630 through 97.635 (TR SO<sub>2</sub> Group 1 Trading Program). The monitoring, recordkeeping and reporting requirements applicable to each unit are included below in the standard conditions for the applicable TR trading programs.
- 2) The permittee must submit to the Administrator a monitoring plan for each unit in accordance with 40 CFR 75.53, 75.62 and 75.73, as applicable. The monitoring plan for each unit is available at the EPA's website at <http://www.epa.gov/airmarkets/emissions/monitoringplans.html>.
  - 3) The permittee that wants to use an alternative monitoring system must submit to the Administrator a petition requesting approval of the alternative monitoring system in accordance with 40 CFR Part 75, Subpart E and 40 CFR 75.66 and 97.435 (TR NO<sub>x</sub> Annual Trading Program), 97.535 (TR NO<sub>x</sub> Ozone Season Trading Program), and/or 97.635 (TR SO<sub>2</sub> Group 1 Trading Program). The Administrator's response approving or disapproving any petition for an alternative monitoring system is available on the EPA's website at <http://www.epa.gov/airmarkets/emissions/petitions.html>.
  - 4) The permittee that want to use an alternative to any monitoring, recordkeeping, or reporting requirement under 40 CFR 97.430 through 97.434 (TR NO<sub>x</sub> Annual Trading Program), 97.530 through 97.534 (TR NO<sub>x</sub> Ozone Season Trading Program), and/or 97.630 through 97.634 (TR SO<sub>2</sub> Group 1 Trading Program) must submit to the Administrator a petition requesting approval of the alternative in accordance with 40 CFR 75.66 and 97.435 (TR NO<sub>x</sub> Annual Trading Program), 97.535 (TR NO<sub>x</sub> Ozone Season Trading Program), and/or 97.635 (TR SO<sub>2</sub> Group 1 Trading Program). The Administrator's response approving or disapproving any petition for an alternative to a monitoring, recordkeeping, or reporting requirement is available on the EPA's website at <http://www.epa.gov/airmarkets/emissions/petitions.html>.]
  - 5) The descriptions of monitoring applicable to the unit included above meet the requirement of 40 CFR 97.430 through 97.434 (TR NO<sub>x</sub> Annual Trading Program), 97.530 through 97.534 (TR NO<sub>x</sub> Ozone Season Trading Program), and 97.630 through 97.634 (TR SO<sub>2</sub> Group 1 Trading Program), and therefore minor permit modification procedures, in accordance with 40 CFR 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B), may be used to add or change this unit's monitoring system description.

#### **TR NO<sub>x</sub> Annual Trading Program requirements (40 CFR 97.406)**

##### **(a) Designated representative requirements.**

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

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

- (1) The permittee, and the designated representative, of each TR NO<sub>x</sub> Annual source and each TR NO<sub>x</sub> Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.430 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.431 (initial monitoring system certification and recertification procedures), 97.432 (monitoring system out-of-control periods), 97.433 (notifications concerning monitoring), 97.434 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.435 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- (2) The emissions data determined in accordance with 40 CFR 97.430 through 97.435 shall be used to calculate allocations of TR NO<sub>x</sub> Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the TR NO<sub>x</sub> Annual emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the

monitoring location determined in accordance with 40 CFR 97.430 through 97.435 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

**(c) NO<sub>x</sub> emissions requirements.**

(1) TR NO<sub>x</sub> Annual emissions limitation.

- (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO<sub>x</sub> Annual source and each TR NO<sub>x</sub> Annual unit at the source shall hold, in the source's compliance account, TR NO<sub>x</sub> Annual allowances available for deduction for such control period under 40 CFR 97.424(a) in an amount not less than the tons of total NO<sub>x</sub> emissions for such control period from all TR NO<sub>x</sub> Annual units at the source.
- (ii). If total NO<sub>x</sub> emissions during a control period in a given year from the TR NO<sub>x</sub> Annual units at a TR NO<sub>x</sub> Annual source are in excess of the TR NO<sub>x</sub> Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:
  - (A). The permittee of the source and each TR NO<sub>x</sub> Annual unit at the source shall hold the TR NO<sub>x</sub> Annual allowances required for deduction under 40 CFR 97.424(d); and
  - (B). The permittee of the source and each TR NO<sub>x</sub> Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 97, Subpart AAAAA and the Clean Air Act.

(2) TR NO<sub>x</sub> Annual assurance provisions.

- (i). If total NO<sub>x</sub> emissions during a control period in a given year from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO<sub>x</sub> emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO<sub>x</sub> Annual allowances available for deduction for such control period under 40 CFR 97.425(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.425(b), of multiplying— (A) The quotient of the amount by which the common designated representative's share of such NO<sub>x</sub> emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO<sub>x</sub> emissions exceeds the respective common designated representative's assurance level; and (B) The amount by which total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the state for such control period exceed the state assurance level.
- (ii). The permittee shall hold the TR NO<sub>x</sub> Annual allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
- (iii). Total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the State during a control period in a given year exceed the state assurance level if such total NO<sub>x</sub> emissions exceed the sum, for such control period, of the state NO<sub>x</sub> Annual trading budget under 40 CFR 97.410(a) and the state's variability limit under 40 CFR 97.410(b).

- 
- (iv). It shall not be a violation of 40 CFR Part 97, Subpart AAAAA or of the Clean Air Act if total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the State during a control period exceed the state assurance level or if a common designated representative's share of total NO<sub>x</sub> emissions from the TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the state during a control period exceeds the common designated representative's assurance level.
  - (v). To the extent the permittee fails to hold TR NO<sub>x</sub> Annual allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
    - (A). The permittee shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
    - (B). Each TR NO<sub>x</sub> Annual allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR Part 97, Subpart AAAAA and the Clean Air Act.
  - (3) Compliance periods.
    - (i). A TR NO<sub>x</sub> Annual unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.
    - (ii). A TR NO<sub>x</sub> Annual unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.
  - (4) Vintage of allowances held for compliance.
    - (i). A TR NO<sub>x</sub> Annual allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO<sub>x</sub> Annual allowance that was allocated for such control period or a control period in a prior year.
    - (ii). A TR NO<sub>x</sub> Annual allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO<sub>x</sub> Annual allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
  - (5) Allowance Management System requirements. Each TR NO<sub>x</sub> Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR Part 97, Subpart AAAAA.
  - (6) Limited authorization. A TR NO<sub>x</sub> Annual allowance is a limited authorization to emit one ton of NO<sub>x</sub> during the control period in one year. Such authorization is limited in its use and duration as follows:
    - (i). Such authorization shall only be used in accordance with the TR NO<sub>x</sub> Annual Trading Program; and
    - (ii). Notwithstanding any other provision of 40 CFR Part 97, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
  - (7) Property right. A TR NO<sub>x</sub> Annual allowance does not constitute a property right.
- (d) Title V permit revision requirements.**
- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO<sub>x</sub> Annual allowances in accordance with 40 CFR Part 97, Subpart AAAAA.

(2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.430 through 97.435, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR Part 75, Subparts B and H), an excepted monitoring system (pursuant to 40 CFR Part 75, Appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR Part 75, Subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.406(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

**(e) Additional recordkeeping and reporting requirements.**

(1) Unless otherwise provided, the owners and operators of each TR NO<sub>x</sub> Annual source and each TR NO<sub>x</sub> Annual unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

(i). The certificate of representation under 40 CFR 97.416 for the designated representative for the source and each TR NO<sub>x</sub> Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.416 changing the designated representative.

(ii). All emissions monitoring information, in accordance with 40 CFR Part 97, Subpart AAAAA.

(iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR NO<sub>x</sub> Annual Trading Program.

(2) The designated representative of a TR NO<sub>x</sub> Annual source and each TR NO<sub>x</sub> Annual unit at the source shall make all submissions required under the TR NO<sub>x</sub> Annual Trading Program, except as provided in 40 CFR 97.418. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a Title V operating permit program in 40 CFR Parts 70 and 71.

**(f) Liability.**

(1) Any provision of the TR NO<sub>x</sub> Annual Trading Program that applies to a TR NO<sub>x</sub> Annual source or the designated representative of a TR NO<sub>x</sub> Annual source shall also apply to the owners and operators of such source and of the TR NO<sub>x</sub> Annual units at the source.

(2) Any provision of the TR NO<sub>x</sub> Annual Trading Program that applies to a TR NO<sub>x</sub> Annual unit or the designated representative of a TR NO<sub>x</sub> Annual unit shall also apply to the owners and operators of such unit.

**(g) Effect on other authorities.**

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

## **TR NO<sub>x</sub> Ozone Season Trading Program Requirements (40 CFR 97.506)**

### **Designated representative requirements.**

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

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

- (1) The permittee, and the designated representative, of each TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.530 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.531 (initial monitoring system certification and recertification procedures), 97.532 (monitoring system out-of-control periods), 97.533 (notifications concerning monitoring), 97.534 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.535 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- (2) The emissions data determined in accordance with 40 CFR 97.530 through 97.535 shall be used to calculate allocations of TR NO<sub>x</sub> Ozone Season allowances under 40 CFR 97.511(a)(2) and (b) and 97.512 and to determine compliance with the TR NO<sub>x</sub> Ozone Season emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.530 through 97.535 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

### **(b) NO<sub>x</sub> emissions requirements.**

- (1) TR NO<sub>x</sub> Ozone Season emissions limitation.
  - (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall hold, in the source's compliance account, TR NO<sub>x</sub> Ozone Season allowances available for deduction for such control period under 40 CFR 97.524(a) in an amount not less than the tons of total NO<sub>x</sub> emissions for such control period from all TR NO<sub>x</sub> Ozone Season units at the source.
  - (ii). If total NO<sub>x</sub> emissions during a control period in a given year from the TR NO<sub>x</sub> Ozone Season units at a TR NO<sub>x</sub> Ozone Season source are in excess of the TR NO<sub>x</sub> Ozone Season emissions limitation set forth in paragraph (c)(1)(i) above, then:
    - (A). The permittee of the source and each TR NO<sub>x</sub> Ozone Season unit at the source shall hold the TR NO<sub>x</sub> Ozone Season allowances required for deduction under 40 CFR 97.524(d); and
    - (B). The permittee of the source and each TR NO<sub>x</sub> Ozone Season unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 97, Subpart BBBB and the Clean Air Act.
- (2) TR NO<sub>x</sub> Ozone Season assurance provisions.
  - (i). If total NO<sub>x</sub> emissions during a control period in a given year from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state exceed the state assurance level, then The permittee of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO<sub>x</sub> emissions during such control

period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO<sub>x</sub> Ozone Season allowances available for deduction for such control period under 40 CFR 97.525(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.525(b), of multiplying—

- (A). The quotient of the amount by which the common designated representative's share of such NO<sub>x</sub> emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO<sub>x</sub> emissions exceeds the respective common designated representative's assurance level; and
  - (B). The amount by which total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state for such control period exceed the state assurance level.
- (ii). The permittee shall hold the TR NO<sub>x</sub> Ozone Season allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
  - (iii). Total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state during a control period in a given year exceed the state assurance level if such total NO<sub>x</sub> emissions exceed the sum, for such control period, of the State NO<sub>x</sub> Ozone Season trading budget under 40 CFR 97.510(a) and the state's variability limit under 40 CFR 97.510(b).
  - (iv). It shall not be a violation of 40 CFR Part 97, Subpart BBBBBB or of the Clean Air Act if total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO<sub>x</sub> emissions from the TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state during a control period exceeds the common designated representative's assurance level.
  - (v). To the extent the permittee fails to hold TR NO<sub>x</sub> Ozone Season allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
    - (A). The permittee shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
    - (B). Each TR NO<sub>x</sub> Ozone Season allowance that the permittee fails to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR Part 97, Subpart BBBBBB and the Clean Air Act.
- (3) Compliance periods.
- (i). A TR NO<sub>x</sub> Ozone Season unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.
  - (ii). A TR NO<sub>x</sub> Ozone Season unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.

- (4) Vintage of allowances held for compliance.
  - (i). A TR NO<sub>x</sub> Ozone Season allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO<sub>x</sub> Ozone Season allowance that was allocated for such control period or a control period in a prior year.
  - (ii). A TR NO<sub>x</sub> Ozone Season allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO<sub>x</sub> Ozone Season allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
- (5) Allowance Management System requirements. Each TR NO<sub>x</sub> Ozone Season allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR Part 97, Subpart BBBBB.
- (6) Limited authorization. A TR NO<sub>x</sub> Ozone Season allowance is a limited authorization to emit one ton of NO<sub>x</sub> during the control period in one year. Such authorization is limited in its use and duration as follows:
  - (i). Such authorization shall only be used in accordance with the TR NO<sub>x</sub> Ozone Season Trading Program; and
  - (ii). Notwithstanding any other provision of 40 CFR Part 97, Subpart BBBBB, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
- (7) Property right. A TR NO<sub>x</sub> Ozone Season allowance does not constitute a property right.

**(c) Title V permit revision requirements.**

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

**(d) Additional recordkeeping and reporting requirements.**

- (1) Unless otherwise provided, the permittee of each TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
  - (i). The certificate of representation under 40 CFR 97.516 for the designated representative for the source and each TR NO<sub>x</sub> Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.516 changing the designated representative.

- (ii). All emissions monitoring information, in accordance with 40 CFR Part 97, Subpart BBBBBB.
  - (iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR NO<sub>x</sub> Ozone Season Trading Program.
- (2) The designated representative of a TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall make all submissions required under the TR NO<sub>x</sub> Ozone Season Trading Program, except as provided in 40 CFR 97.518. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a Title V operating permit program in 40 CFR Parts 70 and 71.

**(e) Liability.**

- (1) Any provision of the TR NO<sub>x</sub> Ozone Season Trading Program that applies to a TR NO<sub>x</sub> Ozone Season source or the designated representative of a TR NO<sub>x</sub> Ozone Season source shall also apply to the owners and operators of such source and of the TR NO<sub>x</sub> Ozone Season units at the source.
- (2) Any provision of the TR NO<sub>x</sub> Ozone Season Trading Program that applies to a TR NO<sub>x</sub> Ozone Season unit or the designated representative of a TR NO<sub>x</sub> Ozone Season unit shall also apply to the owners and operators of such unit.

**(f) Effect on other authorities.**

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

**TR SO<sub>2</sub> Group 1 Trading Program requirements (40 CFR 97.606)**

**(a) Designated representative requirements.**

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

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

- (1) The permittee, and the designated representative, of each TR SO<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.630 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.631 (initial monitoring system certification and recertification procedures), 97.632 (monitoring system out-of-control periods), 97.633 (notifications concerning monitoring), 97.634 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.635 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- (2) The emissions data determined in accordance with 40 CFR 97.630 through 97.635 shall be used to calculate allocations of TR SO<sub>2</sub> Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the TR SO<sub>2</sub> Group 1 emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.630 through 97.635 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

**(c) SO<sub>2</sub> emissions requirements.**

(1) TR SO<sub>2</sub> Group 1 emissions limitation.

- (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR SO<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> Group 1 unit at the source shall hold, in the source's compliance account, TR SO<sub>2</sub> Group 1 allowances available for deduction for such control period under 40 CFR 97.624(a) in an amount not less than the tons of total SO<sub>2</sub> emissions for such control period from all TR SO<sub>2</sub> Group 1 units at the source.
- (ii). If total SO<sub>2</sub> emissions during a control period in a given year from the TR SO<sub>2</sub> Group 1 units at a TR SO<sub>2</sub> Group 1 source are in excess of the TR SO<sub>2</sub> Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:
  - (A). The permittee of the source and each TR SO<sub>2</sub> Group 1 unit at the source shall hold the TR SO<sub>2</sub> Group 1 allowances required for deduction under 40 CFR 97.624(d); and
  - (B). The permittee of the source and each TR SO<sub>2</sub> Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 40 CFR Part 97, Subpart CCCCC and the Clean Air Act.

(2) TR SO<sub>2</sub> Group 1 assurance provisions.

- (i). If total SO<sub>2</sub> emissions during a control period in a given year from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> Group 1 sources in the state exceed the state assurance level, then the permittee of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such SO<sub>2</sub> emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the permittee of such group) TR SO<sub>2</sub> Group 1 allowances available for deduction for such control period under 40 CFR 97.625(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.625(b), of multiplying—
  - (A). The quotient of the amount by which the common designated representative's share of such SO<sub>2</sub> emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such SO<sub>2</sub> emissions exceeds the respective common designated representative's assurance level; and
  - (B). The amount by which total SO<sub>2</sub> emissions from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> Group 1 sources in the state for such control period exceed the state assurance level.
- (ii). The permittee shall hold the TR SO<sub>2</sub> Group 1 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
- (iii). Total SO<sub>2</sub> emissions from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> Group 1 sources in the state during a control period in a given year exceed the state assurance level if such total SO<sub>2</sub> emissions exceed the sum, for such control period, of the state SO<sub>2</sub> Group 1 trading budget under 40 CFR 97.610(a) and the state's variability limit under 40 CFR 97.610(b).

- (iv). It shall not be a violation of 40 CFR Part 97, Subpart CCCCC or of the Clean Air Act if total SO<sub>2</sub> emissions from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> Group 1 sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total SO<sub>2</sub> emissions from the TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> Group 1 sources in the during a control period exceeds the common designated representative's assurance level.
  - (v). To the extent the permittee fails to hold TR SO<sub>2</sub> Group 1 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
    - (A). The permittee shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
    - (B). Each TR SO<sub>2</sub> Group 1 allowance that the permittee fails to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR Part 97, Subpart CCCCC and the Clean Air Act.
  - (3) Compliance periods.
    - (i). A TR SO<sub>2</sub> Group 1 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.
    - (ii). A TR SO<sub>2</sub> Group 1 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.
  - (4) Vintage of allowances held for compliance.
    - (i). A TR SO<sub>2</sub> Group 1 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR SO<sub>2</sub> Group 1 allowance that was allocated for such control period or a control period in a prior year.
    - (ii). A TR SO<sub>2</sub> Group 1 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR SO<sub>2</sub> Group 1 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
  - (5) Allowance Management System requirements. Each TR SO<sub>2</sub> Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR Part 97, Subpart CCCCC.
  - (6) Limited authorization. A TR SO<sub>2</sub> Group 1 allowance is a limited authorization to emit one ton of SO<sub>2</sub> during the control period in one year. Such authorization is limited in its use and duration as follows:
    - (i). Such authorization shall only be used in accordance with the TR SO<sub>2</sub> Group 1 Trading Program; and
    - (ii). Notwithstanding any other provision of 40 CFR Part 97, Subpart CCCCC, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
  - (7) Property right. A TR SO<sub>2</sub> Group 1 allowance does not constitute a property right.
- (d) Title V permit revision requirements.**
- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR SO<sub>2</sub> Group 1 allowances in accordance with 40 CFR Part 97, Subpart CCCCC.

(2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.630 through 97.635, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR Part 75, Subparts B and H), an excepted monitoring system (pursuant to 40 CFR Part 75, Appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR Part 75.19), and an alternative monitoring system (pursuant to 40 CFR Part 75, Subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this Title V permit using minor permit modification procedures in accordance with 40 CFR 97.606(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

**(e) Additional recordkeeping and reporting requirements.**

(1) Unless otherwise provided, the permittee of each TR SO<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> Group 1 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

(i). The certificate of representation under 40 CFR 97.616 for the designated representative for the source and each TR SO<sub>2</sub> Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.616 changing the designated representative.

(ii). All emissions monitoring information, in accordance with 40 CFR part 97, subpart CCCCC.

(iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR SO<sub>2</sub> Group 1 Trading Program.

(2) The designated representative of a TR SO<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> Group 1 unit at the source shall make all submissions required under the TR SO<sub>2</sub> Group 1 Trading Program, except as provided in 40 CFR 97.618. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

**(f) Liability.**

(1) Any provision of the TR SO<sub>2</sub> Group 1 Trading Program that applies to a TR SO<sub>2</sub> Group 1 source or the designated representative of a TR SO<sub>2</sub> Group 1 source shall also apply to the owners and operators of such source and of the TR SO<sub>2</sub> Group 1 units at the source.

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

**(g) Effect on other authorities.**

No provision of the TR SO<sub>2</sub> Group 1 Trading Program or exemption under 40 CFR 97.605 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR SO<sub>2</sub> Group 1 source or TR SO<sub>2</sub> Group 1 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

**PERMIT CONDITION 009**  
 10 CSR 10-6.060 Construction Permits Required  
 Construction Permit No. 0391-002, Issued March 6, 1991  
 10 CSR 10-6.070 New Source Performance Standards  
 40 CFR Part 60 Subpart GG Standards of Performance for Stationary Gas Turbines

Emission Unit	Description
EU-11	Combustion Turbine 1: combustion turbine; dual fueled-natural gas and No. 2 fuel oil; MHDR 991 MMBtu; equipped with water injection (CD07); turbine installed in 1989
EU-12	Combustion Turbine 2: combustion turbine; dual fueled-natural gas and No. 2 fuel oil; MHDR 973 MMBtu; equipped with water injection (CD08); turbine installed in 1991.

**Notes:**

The Combustion Turbines GT1 and GT2 (EU-11 and EU-12) are subject to the standards for nitrogen oxides in both Construction Permit 0391-002 and the NSPS 40 CFR Part 60 Subpart GG. The emissions limitations established in subpart GG are less stringent than the emissions limitations established by Construction Permit 0391-002. Therefore, Permit Condition 010 includes the more stringent limitations established by Construction Permit 0391-002.

**Emission Limitations/Operational Limitations:**

- 1) Best Available Control Technology for the emissions of nitrogen oxides from the operation of each of these turbines (Combustion Turbine #1 and Combustion Turbine #2) is set at 42 parts per million by volume, one-hour rolling average, corrected to 15% oxygen, when burning natural gas. [Permit 0391-002, Special Condition 1]
- 2) Best Available Control Technology for the emissions of nitrogen oxides from the operation of each of these turbines (Combustion Turbine #1 and Combustion Turbine #2) is set at 65 parts per million by volume, one-hour rolling average, corrected to 15% oxygen, when combusting No. 2 fuel oil. Recognizing that fuel-bound nitrogen can be a problem when combusting No. 2 fuel oil, an allowance for fuel-bound nitrogen is allowed. The allowance is taken from the following table, and added to the 65 ppm<sub>v</sub> limit. [Permit 0391-002, Special Condition 2]

Fuel-bound Nitrogen (percent by weight)	Allowance (ppm <sub>v</sub> )
$N \leq 0.015$	0
$0.015 < N \leq 0.05$	400 (N)

- 3) The permittee shall comply with one or the other of the following conditions: [40 CFR 60.333]
  - a) The permittee shall not cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis. [40 CFR 60.333(a)]
  - b) The permittee shall not burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw). [40 CFR 60.333(b)]
- 4) The aggregate emissions from the operation of both turbines shall not exceed the de minimis emissions limits for any pollutant except nitrogen oxides. Sulfur dioxide will be measured by fuel analysis rather than by Method 6 or 6C. There being no SO<sub>2</sub> reduction in the gas turbine, this method will provide acceptable accuracy. [Permit 0391-002, Special Condition 3]

- 5) Neither of these turbines shall be operated in excess of 3,000 hours per year. This operation restriction is established on a rolling monthly basis, with the end of each month establishing a new yearly period. [Permit 0391-002, Special Condition 4]
- 6) These two turbines combined shall not combust in excess of 1.4 million gallons of No. 2 fuel oil, with a sulfur content of 0.4 percent. (However, the voluntary PW permit condition (PW001) limits the sulfur content to 0.1%, by weight.) This is equivalent to 260 hours per year when burning fuel oil. This will insure that the deminimis emission limit of 40 tons per year sulfur dioxide will not be exceeded due to sulfur dioxide emissions from fuel-bound sulfur. This operating restriction is established on a rolling monthly basis, with the end of each month establishing a newly yearly period. These operating hours may be split between the two turbines in any manner which the permittee chooses. Should the permittee choose to use distillate oil with a sulfur content different from 0.4 percent, the maximum combustion limit of 1.4 million gallons of No. 2 fuel oil must be adjusted to compensate for the difference in fuel sulfur content. [Permit 0391-002, Special Condition 5 and 40 CFR 60.333(b)]
- 7) The permittee shall adhere to the requirements of 10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions at all times that these turbines are operated. [Permit 0391-002, Special Condition 6]
- 8) If any one or more of the baseload units at either James River or John Twitty (formerly Southwest) is out of service due to malfunction, or if additional electrical power is required in order to preserve the integrity of the power grid, the permittee may operate these two turbines for up to an additional 3,000 hours in any calendar year, not to exceed a combined (both turbines together) annual operating rate of 9,000 hours. Further, such operation shall be done only while combusting natural gas. The permittee shall take all reasonable steps necessary to restore to operation the affected baseload units in as timely a manner as possible. BACT must be reevaluated if this agency subsequently decides that either of these turbines have been used in excess of 3,000 hours per year without a generation emergency having actually existed, or that such excess usage of these turbines is no longer temporary. [Permit 0391-002, Special Condition 7]
- 9) No fuels other than natural gas or No. 2 fuel oil shall be combusted in these gas turbines at any time. [Permit 0391-002, Special Condition 8]
- 10) Combustion Turbine #1 and Combustion Turbine #2 are subject to the requirements of 10 CSR 10-6.070 New Source Performance Standards. As such, these turbines are subject to the requirements of 40 CFR Subpart A General Provisions and Subpart GG Standards of Performance for Stationary Gas Turbines. [Permit 0391-002, Special Condition 11]
- 11) The permittee is exempt from conditions 1) and 2) in this section, (Special Conditions 1 and 2 of permit 0391-002), 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. [Permit 0391-002, Special Condition 15 and 40 CFR 60.332(f)]

**Monitoring:**

- 1) The permittee shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the fuel consumption and ratio of water to fuel being fired in the turbine. This system shall be accurate to within  $\pm 5$  percent, and shall be approved by the Director. [Permit 0391-002, Special Condition 9 and 40 CFR 60.334(a)]
- 2) The water to fuel ratio that are continuously monitored as described in 40 CFR 60.334(a) shall be monitored during the performance test required under 40 CFR 60.8, to establish acceptable values and ranges. The permittee may supplement the performance test data with engineering analyses, design specifications, manufacturer's recommendations and other relevant information to define the

acceptable parametric ranges more precisely. The permittee shall develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the NO<sub>x</sub> emission controls. The plan shall include the parameter(s) monitored and the acceptable range(s) of the parameter(s) as well as the basis for designating the parameter(s) and acceptable range(s). Any supplemental data such as engineering analyses, design specifications, manufacturer's recommendations and other relevant information shall be included in the monitoring plan. [40 CFR 60.334(g)]

- 3) The permittee shall monitor the total sulfur content of the fuel being fired in the turbine using the total sulfur methods described in 40 CFR 60.335(b)(10), except as provided in 40 CFR 60.334(h)(3) and listed below: [40 CFR 60.334(h)(1)]
  - a) The permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u). The permittee shall use one of the following sources of information to make the required demonstration: [40 CFR 60.334(h)(3)]
    - i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or [40 CFR 60.334(h)(3)(i)]
    - ii) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of chapter 40 is required. [40 CFR 60.334(h)(3)(ii)]
- 4) The permittee shall monitor the nitrogen content of the fuel combusted in the turbine, if the permittee claims an emission allowance for fuel bound nitrogen (i.e., if an F-value greater than zero is being or will be used by the permittee to calculate STD). The nitrogen content of the fuel shall be determined using methods described in §60.335(b)(9) or an approved alternative. [40 CFR 60.334(h)(2)]
- 5) The permittee shall monitor the sulfur content and the nitrogen content of the fuel being fired in the turbines. The frequency of determination of these values shall be as follows: [Permit 0391-002, Special Condition 10]
  - a) If the turbines are supplied their fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from another source. [Permit 0391-002, Special Condition 10.A]
  - b) If the turbines are supplied fuel without intermediate bulk storage, the values shall be determined and recorded daily. Owners, operators, or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by both the Director of the Department of Natural Resources, and by the Administrator of the U. S. Environmental Protection Agency, before they can be used to comply with this condition. [Permit 0391-002, Special Condition 10.B]
- 6) The frequency of determining the sulfur and nitrogen content of the fuel shall be as follows: [40 CFR 60.334(i)]
  - a) *Fuel oil.* For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of appendix D to part 75 (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank). If an emission allowance is being claimed for fuel-bound nitrogen,

- the nitrogen content of the oil shall be determined and recorded once per unit operating day. [40 CFR 60.334(i)(1)]
- b) *Gaseous fuel.* Any applicable nitrogen content value of the gaseous fuel shall be determined and recorded once per unit operating day, only if the permittee claims an allowance for fuel bound nitrogen (i.e., if an F-value greater than zero is being or will be used by the permittee to calculate STD). [40 CFR 60.334(i)(2)]
- 7) If a custom schedule has been approved, the permittee may, without submitting a special petition to the Administrator, continue monitoring on this schedule. [40 CFR 60.334(h)(4)]
- 8) Alternately, two custom sulfur monitoring schedules set forth in paragraphs (i)(3)(i)(A) through (D) and in paragraph (i)(3)(ii) of 40 CFR 60.334 are acceptable, without prior approval.

**Testing:**

- 1) To determine the fuel bound nitrogen content of fuel being fired (if an emission allowance is claimed for fuel bound nitrogen), the permittee may use equipment and procedures meeting the requirements of: [40 CFR 60.335(b)(9)]
- a) For liquid fuels, ASTM D2597-94 (Reapproved 1999), D6366-99, D4629-02, D5762-02 (all of which are incorporated by reference, *see* §60.17); or [40 CFR 60.335(b)(9)(i)]
- b) For gaseous fuels, shall use analytical methods and procedures that are accurate to within five (5) percent of the instrument range and are approved by the Administrator. [40 CFR 60.335(b)(9)(ii)]
- 2) If the permittee is required under §60.334(i)(1) or (3) to periodically determine the sulfur content of the fuel combusted in the turbine, a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using: [40 CFR 60.335(b)(10)]
- a) For liquid fuels, ASTM D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01 (all of which are incorporated by reference, *see* 40 CFR 60.17); or [40 CFR 60.335(b)(10)(i)]
- 3) For gaseous fuels, ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); or D6667-01 (all of which are incorporated by reference, *see* §60.17). 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 prior approval of the Administrator. [40 CFR 60.335(b)(10)(ii)]
- 4) The fuel analyses required under 40 CFR 60.335(b)(9) and (b)(10) may be performed by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency. [40 CFR 60.335(b)(11)]

**Record Keeping/Reporting:**

- 1) Records shall be kept on-site which detail the number of hours each unit is operated, and the amount of natural gas consumed in these gas turbines, on a per-month basis. These records shall be kept for a period of at least five (5) years, and shall be made available to department personnel during any site inspection. Compliance with the restriction on annual operating hours shall be verified monthly. Reports shall be submitted to the department on a quarterly basis, within thirty (30) days after the end of each quarter. [Permit 0391-002, Special Condition 4]
- 2) Records shall be kept on-site which detail the number of hours each unit is operated, and the amount of No. 2 fuel oil consumed in these gas turbines, on a per-month basis. These records shall be kept for a period of at least five (5) years, and shall be made available to department personnel during any site inspection. Compliance with the restriction on annual operating hours shall be verified monthly.

Reports shall be submitted to the department on a quarterly basis, within thirty (30) days after the end of each quarter. [Permit 0391-002, Special Condition 5]

- 3) The permittee shall be required to keep records in sufficient detail that compliance with the requirement that the annual emission rate of sulfur dioxide not exceed 40 tons may be easily and unambiguously verified. Records shall follow the guidelines stated above. [Permit 0391-002, Special Condition 5]
- 4) The permittee shall record the fuel consumption and ratio of water to fuel being fired in the turbine with a continuous monitoring system. These records shall be kept on-site for a period of at least five (5) years, and shall be made available to department personnel during any site inspection. Excess emissions shall be reported to the department on a quarterly basis. [Permit 0391-002, Special Condition 9]
- 5) The permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR 60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows: [40 CFR 60.334(j)]
  - a) Nitrogen oxides. [40 CFR 60.334(j)(1)]
    - i) For turbines using water to fuel ratio monitoring: [40 CFR 60.334(j)(1)(i)]
      1. An excess emission shall be any unit operating hour for which the average water to fuel ratio, as measured by the continuous monitoring system, falls below the acceptable water to fuel ratio needed to demonstrate compliance with emission limitations, as established during the performance test required in 40 CFR 60.8. Any unit operating hour in which no water is injected into the turbine shall also be considered an excess emission. [40 CFR 60.334(j)(1)(i)(A)]
      2. A period of monitor downtime shall be any unit operating hour in which water is injected into the turbine, but the essential parametric data needed to determine the water to fuel ratio are unavailable or invalid. [40 CFR 60.334(j)(1)(i)(B)]
      3. Each report shall include the average water to fuel ratio, average fuel consumption, ambient conditions (temperature, pressure, and humidity), gas turbine load, and (if applicable) the nitrogen content of the fuel during each excess emission. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in 40 CFR 60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of 40 CFR 60.335(b)(1). [40 CFR 60.334(j)(1)(i)(C)]
    - ii) If the permittee elects to take an emission allowance for fuel bound nitrogen, then excess emissions and periods of monitor downtime are as described in 40 CFR 60.334(j)(1)(ii)(A) and (B). [40 CFR 60.334(j)(1)(ii)]
      1. An excess emission shall be the period of time during which the fuel-bound nitrogen (N) is greater than the value measured during the performance test required in 40 CFR 60.8 and used to determine the allowance. The excess emission begins on the date and hour of the sample which shows that N is greater than the performance test value, and ends with the date and hour of a subsequent sample which shows a fuel nitrogen content less than or equal to the performance test value. [40 CFR 60.334(j)(1)(ii)(A)]
      2. A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour that a required sample is taken, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample. [40 CFR 60.334(j)(1)(ii)(A)]

- 
- b) Sulfur dioxide. If the permittee is required to monitor the sulfur content of the fuel under 40 CFR 60.334(h): [40 CFR 60.334(j)(2)]
- i) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. [40 CFR 60.334(j)(2)(i)]
  - ii) If the option to sample each delivery of fuel oil has been selected, the permittee shall immediately switch to one of the other oil sampling options (*i.e.*, daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.8 weight percent. The permittee shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and shall evaluate excess emissions according to 40 CFR 60.334(j)(2)(i). When all of the fuel from the delivery has been burned, the owner or operator may resume using the as-delivered sampling option. [40 CFR 60.334(j)(2)(ii)]
  - iii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample. [40 CFR 60.334(j)(2)(iii)]
- c) Ice fog. Each period during which an exemption provided in 40 CFR 60.332(f) is in effect shall be reported in writing to the Administrator quarterly. For each period the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time the air pollution control system was reactivated shall be reported. All quarterly reports shall be postmarked by the thirtieth (30<sup>th</sup>) day following the end of each calendar quarter. [40 CFR 60.334(j)(4)]
- d) All quarterly reports (See Attachment L or equivalent form shall be used) required under 40 CFR 60.7(c) shall be postmarked by the thirtieth (30<sup>th</sup>) day following the end of each calendar quarter. [40 CFR 60.334(j)(5)]
- 6) The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any deviations/exceedance of this permit condition.
- 7) The permittee shall report any deviations from the monitoring/recordkeeping and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

**PERMIT CONDITION 010**

10 CSR 10-6.070 New Source Performance Regulations  
40 R Part 60 Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional  
Steam Generating Units

Emission Unit	Description
EU-165	Natural Gas Fired Building Heat Boiler; MHDR is 15.0 MMBtu/hr; installed 2014. Manufacturer: Superior Boiler Works (Locke Equipment Co.)
EU-225 and EU-226	Natural Gas Fired Water Bath Vaporizers for propane-air peaking station; MHDR is 14.8 MMBtu/hr each; Installed in 2007; Manufacturer: Power Flame Burner

**Emission Limitation:**

None.

**Monitoring/Record Keeping:**

- 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 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) The permittee, where the only fuels combusted in any steam generating unit at the property are natural gas, 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:
- 2) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.
- 3) 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.
- 4) 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)]
- 5) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted by the permittee semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

**PERMIT CONDITION 011**

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

Emission Unit	Description
EU127	Emergency Fire Pump: diesel powered stationary IC engine for pumping water through fire protection system in emergency situation; MHDR is 130 HP; Constructed 2000

**Work Practice Standards:**

- 1) The permittee shall comply with the following requirements<sup>1</sup>: [§63.6602]
  - a) Change oil and filter every 500 hours of operation or annually, whichever comes first.<sup>2</sup>
  - b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
  - c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.<sup>3</sup>

**Fuel Requirements:**

Beginning January 1, 2015, if the fire pump operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii), the permittee shall use diesel fuel that meets the requirements in §80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. [§63.6604(b)]

**Operational Limitations:**

- 1) The permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions: [§63.6625(e)]
- 2) The permittee shall install a non-resettable hour meter if one is not already installed. [§63.6625(f)]
- 3) The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement. The oil analysis shall be performed at the same frequency specified for changing the oil. The analysis program shall at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these

<sup>1</sup> If the fire pump is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. The permittee shall report any failure to perform the work practice on the schedule required and the federal, state, or local law under which the risk was deemed unacceptable.

<sup>2</sup> The permittee has the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement.

<sup>3</sup> The permittee may petition the Director pursuant to the requirements of §63.6(g) for alternative work practices.

parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee shall change the oil within two business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee shall change the oil within two business days or before commencing operation, whichever is later. The permittee shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the engine. [§63.6625(i)]

**Continuous Compliance Requirements:**

- 1) The permittee shall be in compliance with the work practice standards, fuel requirements, and operational limitations at all times. [§63.6605(a)]
- 2) At all times the permittee shall operate and maintain the 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. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [§63.6605(b)]
- 3) The permittee shall report each instance in which the permittee did not meet the applicable requirements in MACT A. [§63.6640(e)]
- 4) The permittee shall operate the emergency fire pump according to the requirements in §63.6640(f)(1) through (3). In order for the engine to be considered an emergency stationary RICE under MACT ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in §63.6640(f)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in §63.6640(f)(1) through (3), the engine will not be considered an emergency engine under MACT ZZZZ and shall 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 §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 §63.6640(f)(3) counts as part of the 100 hours per calendar year allowed by this paragraph. [§63.6640(f)(2)]
    - i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee 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 five percent or greater below standard voltage or frequency. [§63.6640(f)(2)(iii)]
- c) Emergency stationary RICE located at major 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 §63.6640(f)(2). 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 supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§63.6640(f)(3)]

**Recordkeeping:**

- 1) The permittee shall 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 a maintenance plan. [§63.6655(e)]
- 2) The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii), the permittee shall 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) If the fire pump operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii), the permittee shall submit an annual report according to the following requirements: [§63.6650(h)]
- a) The report shall contain the following information: [§63.6650(h)(1)]
- i) Company name and address where the engine is located. [§63.6650(h)(1)(i)]
- ii) Date of the report and beginning and ending dates of the reporting period. [§63.6650(h)(1)(ii)]
- iii) Engine site rating and model year. [§63.6650(h)(1)(iii)]
- iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place. [§63.6650(h)(1)(iv)]
- v) Hours operated for the purposes specified in §63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(2)(ii) and (iii). [§63.6650(h)(1)(v)]
- vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §63.6640(f)(2)(ii) and (iii). [§63.6650(h)(1)(vi)]
- vii) If there were no deviations from the fuel requirements in §63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period. [§63.6650(h)(1)(viii)]
- viii) If there were deviations from the fuel requirements in § 63.6604 that apply to the engine

(if any), information on the number, duration, and cause of deviations, and the corrective action taken. [§63.6650(h)(1)(ix)]

- b) The first annual report shall cover the calendar year 2015 and shall be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year shall be submitted no later than March 31 of the following calendar year. [§63.6650(h)(2)]
- c) The annual report shall be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA’s Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to MACT ZZZZ is not available in CEDRI at the time that the report is due, the written report shall be submitted to the Administrator at the appropriate address listed in § 63.13. [§63.6650(h)(3)]

<b>PERMIT CONDITION 012</b>	
10 CSR 10-6.070 Construction Permits Required Construction Permit No. 102006-006, Issued October 10, 2006	
Emission Unit	Description
EU255	Paved Haul Roads for propane-air peak shaving plant

**Emission/Operational Limitation:**

The permittee shall control dust from the haul road(s) by using paved haul road(s). The installation shall periodically water and/or wash the paved portions of the affected areas such that no “appreciable visible emission” of particulate matter is allowed to occur from the surface of these paved road(s). [Special Condition 1]

**Monitoring/Recordkeeping/Reporting:**

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

<b>PERMIT CONDITION 013</b>	
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63 Subpart CCCCCC National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities	
Emission Unit	Description
EU27	500 Gallon gasoline storage tank for vehicle fueling

**Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline:**

- 1) The permittee must, at all times, 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. [§63.11115(a)]
- 2) The permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following: [§63.11116(a)(1) through (4)]
  - a) Minimize gasoline spills;

- b) Clean up spills as expeditiously as practicable;
- c) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
- d) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

**Recordkeeping/Reporting:**

- 1) The permittee shall demonstrate that their monthly throughput is less than the 10,000 gallon threshold level. Records shall be kept for a period of five years. [§63.11111(e)]
- 2) The permittee must have records available within 24 hours of a request by the Administrator to document the gasoline throughput. [§63.11116(b)]
- 3) The permittee shall report by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred. [§63.111126(b)]
- 4) The permittee shall submit reports to EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219.
- 5) 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 014**  
 10 CSR 10-6.060 Construction Permits Required  
 Construction Permit 032003-017, Issued January 31, 2003

Emission Unit	Description
EU160	Dry Fly Ash Exhauster: pneumatic conveying of the fly ash from the electric precipitators to dry storage silos: MHDR is 13 tons/hr; equipped with fabric filter; installed 2003.
EU161	Fly Ash Silo Dry Unloading Spout: marketable portion of fly ash is transferred to transport trucks via a spout with a local exhaust fan to return fugitive emissions to the storage silo; MHDR is 120 tons/hr; equipped with dust suppression system; installed 2003.
EU162	Fly Ash Unloading (Paddle Mixer or DustMaster™): remaining portion of fly ash is run through a paddle mixer at the discharge point of the storage silo and the conditioner tumbles the ash with water to form pellets; pellets are loaded on truck and hauled to landfill; MHDR is 120 tons/hr; installed 2003.

**Operational Limitation/Monitoring:**

- 1) Baghouse(s) - Operation, Maintenance & Record Keeping Requirements
  - a) The baghouse(s) associated with the pneumatic conveying units must be in use at all times when the associated equipment is in operation. The baghouse(s) and any related instrumentation or equipment shall be operated and maintained in accordance with the manufacturer’s specifications. The baghouse(s) shall be equipped with a gauge or meter, which indicates the

pressure drop across the baghouse. This gauge or meter shall be located in such a way it may be easily observed by Department of Natural Resources' employees. [Permit 032003-017, Special Condition 1.A.]

- b) Replacement bags for the baghouse(s) shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). [Permit 032003-017, Special Condition 1.B.]
  - c) The permittee shall monitor and record the operating pressure drop across the baghouse at least once in every twenty four (24) hour period when the associated equipment is operated. The operating pressure drop shall be maintained within the normal operating range specified by the manufacturer's performance warranty. If the pressure drop reading should fall outside of this normal operating range, then the associated equipment shall be shut down as quickly as is reasonably practical. Corrective actions shall be taken to address the cause of the non-normal pressure drop and the baghouse(s) shall be returned to normal operation before re-starting the equipment. [Permit 032003-017, Special Condition 1.C.]
  - d) The permittee shall inspect the baghouse(s) at least once every six (6) months and at a minimum, conduct the following activities:
    - i) Check the cleaning sequence for the baghouse for proper operation;
    - ii) Thoroughly inspect the bags for leaks and signs of wear;
    - iii) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc.; and
    - iv) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment. [Permit 032003-017, Special Condition 1.D.]
- 2) Fly Ash Truck Loading
- a) The permittee shall continually operate and maintain the dust suppression system (the close-fitting snorkel encased by a transfer tube that vents fugitive emissions back to the silo during truck loading ) rated at fifty percent (50%) efficiency to control PM<sub>10</sub> emissions from the fly ash truck loading. [Permit 032003-017, Special Condition 2.A.]
- 3) Paddle Mixer (or DustMaster™)
- a) The Paddle Mixer must be in use at all times when ash is being conditioned for disposal in the landfill. The Paddle Mixer (or DustMaster™) shall be operated and maintained in accordance with the manufacturer's specifications. [Permit 032003-017, Special Condition 3.A.]

**Record Keeping:**

- 1) Baghouse(s) - Operation, Maintenance & Recordkeeping Requirements
  - a) The permittee shall maintain an operating, maintenance and inspection log for the baghouse(s) which shall include the following: [Permit 032003-017, Special Condition 1.E.]
    - i) Incidents of malfunction(s) including the date(s) and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction;
    - ii) Any maintenance activities conducted on the unit, such as bag replacement, replacement of equipment, etc.; and
    - iii) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.
- 2) Fly Ash Truck Loading
  - a) Records shall be kept on site for the most recent twenty four (24) months for the dust suppression system listing periods of malfunction, the cause of the malfunction, and remedial action taken. These records shall be made available immediately for inspection to the

Department of Natural Resources personnel upon request. [Permit 032003-017, Special Condition 2.B.]

- 3) Paddle Mixer (or DustMaster™)
  - a) Records shall be kept on site for the most recent twenty four (24) months for the Paddle Mixer (or DustMaster™) listing periods of malfunction, the cause of the malfunction, and remedial action taken. These records shall be made available immediately for inspection to the Department of Natural Resources personnel upon request. [Permit 032003-017, Special Condition 3.B.]
- 4) All records shall be maintained for five (5) years. They shall be kept onsite for at least two (2) years. They may be kept in either hard-copy form or on computer media.

**Reporting:**

Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION 015**  
 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Unit	Description
EU160	Dry Fly Ash Exhauster: pneumatic conveying of the fly ash from the electric precipitators to dry storage silos: MHDR is 13 tons/hr; equipped with fabric filter; installed 2003

**Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any source any visible emissions with an opacity equal to or greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity equal to but not greater than 40%.
- 3) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity equal to but not greater than 60% if the emission is caused by the starting of or cleaning of a fire, and so long as such emissions do not occur on more than three occasions during any consecutive 24-hour period.

**Monitoring:**

- 1) The permittee shall conduct opacity readings on EU160 using the procedures contained in USEPA Test Method 22. At a minimum, the observer shall be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the certified source representative or contracted service provider would then conduct a Method 9 observation.

- 2) The following monitoring schedule must be maintained, when visible emissions perceived or believed to exceed the applicable opacity standard, otherwise see 4., below:
  - a) Weekly observations shall be conducted for a minimum of eight (8) consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
  - b) Observations must be made once every two (2) weeks for a period of eight (8) weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
  - c) Observations must be made once per month. If a violation is noted following a Method 9 Visual Observation, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.
- 4) The permittee is allowed to maintain the current monitoring schedule under its existing permit, unless visible emissions perceived or believed to exceed the applicable opacity standard.
- 5) A Method 9 Visual Observation can be used to satisfy the monitoring requirement, in lieu of a Method 22.

**Record Keeping:**

- 1) The permittee shall maintain records of all observation results (see Attachment C-1 or C-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment D)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) All records shall be maintained for five (5) years. They shall be kept onsite for at least two (2) years. They may be kept in either hard-copy form or on computer media.
- 5) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

**Reporting:**

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the permittee determined using the Method 9 test that the emission unit exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

## IV. Core Permit Requirements

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

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

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

### **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.

**Monitoring:**

The permittee shall conduct inspections of its facilities sufficient to determine compliance with this regulation. If the permittee discovers a violation, the permittee shall undertake corrective action to eliminate the violation.

The permittee shall maintain the following monitoring schedule; otherwise see 4) below:

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

**Recordkeeping:**

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

- 1) Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
- 2) Whether equipment malfunctions contributed to an exceedance.
- 3) Any violations and any corrective actions undertaken to correct the violation.

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

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

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

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

An Acid Rain permit is being issued in conjunction with this operating permit. The permit will be effective until the operating permit expires and a renewal application is due within six months of expiration. The Acid Rain Permit applies to Boiler Nos. 3, 4, and 5 and Combustion Turbine GT2. The Acid Rain Permit is included in the operating permit as Attachment H.

#### **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 Daniel Hedrick, Director - Environmental Affairs. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

### **10 CSR 10-6.065(6)(E)6 Reopening-Permit for Cause**

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
- 2) MDNR or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 3) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
  - a) The permit has a remaining term of less than three years;

- b) The effective date of the requirement is later than the date on which the permit is due to expire;  
or
- c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit;  
or
- 5) MDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

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

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

## **VI. Attachments**

Attachments follow.





**Attachment C**

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

Readings ranged from \_\_\_\_\_ to \_\_\_\_\_ % opacity.

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



**ATTACHMENT E**  
**Fuel Oil Analysis Summary Report**  
James River Power Station

This record keeping sheet or an equivalent form may be used for the record keeping requirements of Permit Condition PW001

<b>Nitrogen Content</b>		
<b>Sulfur %, wt</b>		
<b>Specific Gravity</b>		
<b>Btu</b>		
<b>Gallons Delivered</b>		
<b>Date Sample Upon Delivery</b>		
<b>Sample ID</b>		<b>WTD. AVG.</b>



## ATTACHMENT G

### 2001 Consent Agreement

#### Appendix I. Continuous Emission Measurement by Surrogate Monitoring

##### **A. Purpose**

Unlike Units 3, 4, 5, JRPS Units 1 and 2 are not equipped with continuous emission monitoring systems (CEMS). Therefore short-term compliance must be demonstrated by alternate methods. Since SO<sub>2</sub> emissions from this facility are primarily dependent on fuel characteristics, the emission rate should not vary significantly from unit to unit, *provided* that the fuel blend is consistent. This appendix establishes the means by which Unit 1 and 2 emissions may be predicted accurately using contemporaneous emissions data from one of the monitored units.

##### **B. Monitoring Strategy**

City Utilities will add channels to its existing CEMS data acquisition and handling system (DAHS) to record, calculate and report hourly emissions from Unit 1 and Unit 2. The raw data to populate these reporting channels will be derived from contemporaneous hourly emissions data from Unit 3. The Unit 3 data, expressed in pounds per million Btu heat input, will be adjusted for fuel mix differences, as described below. The resulting emission values for Units 1 and 2 will be used to determine compliance with the 1.5 lb/MMBtu limit on a 24-hour average basis. If Units 1 and/or 2 operate on a day when no contemporaneous Unit 3 data are available, the DAHS will switch to Unit 4 for its primary input.

##### **C. Basis for Equivalence**

For any given operating day, the SO<sub>2</sub> emission rate for Units 3 and 4 (the CEMS units) will be essentially equivalent to contemporaneous emission rates for Units 1 and 2 (the non-CEMS units) if all of the following conditions are satisfied:

1. The proportional blend of low-sulfur sub-bituminous and higher-sulfur bituminous coals charged to the bunkers of the CEMS and non-CEMS units are essentially equal (this will be verified by using the criteria in D.1.5);
2. The respective sulfur and calorific values of the sub-bituminous and bituminous coals are consistent from unit to unit;
3. The CEMS and non-CEMS units co-fire the same type and proportion of auxiliary fuels, such as natural gas; and,
4. There are no fundamental design or operational differences between the boilers of the CEMS and non-CEMS units (such as fly ash sulfate retention) that would affect the conversion and subsequent emission of sulfur as SO<sub>2</sub>.

In order to utilize monitoring data from the CEMS units to document compliance on the non-CEMS units, MDNR will apply a rebuttable presumption that all of these criteria are met for every operating day. However, City Utilities must document that the coal consistency criteria are met on a daily basis, must correct emissions data for differences in auxiliary fuel firing, and may be required to demonstrate the validity of criterion 4 under certain conditions. If, for any given day, the presumption is found invalid, then the CEMS units may not provide accurate surrogate emissions data. City Utilities must then employ other means (such as frequent fuel analysis) to document compliance with the 24-hour SO<sub>2</sub> emissions limits for Units 1 and 2.

## Attachment G, continued

### D. Equivalence Assurance

#### 1. Coal blend equivalence

- 1.1 Fuel blend equivalence has the most direct bearing on SO<sub>2</sub> emissions comparisons between the CEMS and non-CEMS units. For the coal blend on Units 1 and 2 to be deemed equivalent to Unit 3 or 4, the respective weight ratios of sub-bituminous to total coal must agree to within 10%, except during start-up or shutdown.
- 1.2 The coal handling process at JRPS is described below. This description is included merely for the sake of clarifying the provisions that follow. This appendix does not propose to alter these fuel handling procedures, except as noted in paragraph 1.3, *et seq.*

The JRPS coal-handling system consists of equipment that unloads coal from rail cars, transfers it to an external storage area, and reclaims it later for use within the plant. The system is bifurcated to allow separate storage of bituminous and sub-bituminous coals. The separate coal streams are recombined in controlled proportions during the reclaim process. The system is illustrated in attached drawing I95-J-55 and described further below.

Typically, coal is unloaded from rail cars into an in-ground bunker and traverses four conveyor belts before entering the boiler. Belt No. 1 removes the coal from the unloading bunker and transfers the coal to the proper storage pile; 1A goes to the bituminous storage area and 1B to the sub-bituminous area. The coal may continue into the plant at this stage, if unloading happens to coincide with reclamation, or it may be transferred by a front-end loader to the appropriate pile for long-term storage. When coal is reclaimed from storage, the loader brings it back to the reclaim area and deposits it onto one of two “ready piles”. These small piles are adjacent to dedicated in-ground bunkers. Belt No. 2 transfers the coal from the reclaim bunker hopper to the enclosed crusher building; 2A carries bituminous and 2B carries sub-bituminous coal. Importantly, the blend is established and controlled by the relative feeding rates from the reclaim hoppers. Highly accurate belt scales monitor and record the instantaneous feed rate and total weight of each type of coal transferred into the plant. Physical blending occurs during free fall in the crusher building and the system sees only a combined stream from this point forward. Belt No. 3 carries the blended coal to the fourth level of the power plant structure, still on the building exterior. The coal then transfers to Belt No. 4, which runs the length of the building on the interior of the fourth floor. Belt No. 4 is equipped with a tripping mechanism that deposits the blended coal into in-plant bunkers serving each steam unit. These bunkers are typically filled one to two times per operating day, depending on expected unit load.

A coal floor technician is responsible for moving the tripper device from one bunker to the next as coal is put up for the day. This technician also controls the feed rates, and therefore the blend rates, of the other belts in the system from a computer console on the fourth floor. Factors that influence blend ratio variability include: inherent non-homogeneity of coal deliveries and material stored on the piles; precision of the feeders on the 2A and 2B reclaim hoppers; and physical “clumping” caused by rainfall or the dust control sprays. In addition, while the reclaim belts are each equipped with highly accurate belt scales, there is no direct way to ascertain the tonnage stored in the in-plant silos on each unit.

### Attachment G, continued

City Utilities recently has installed a very precise weight belt feeder on the 2A (bituminous) coal conveyor to accompany the existing belt feeders on the 2B (sub-bituminous) coal conveyor. This will provide a more precisely controlled fuel blend going to all coal bunkers.

- 1.3 City Utilities will install instrumentation on the coal-loading conveyor (i.e., the No. 4 belt on the tripper floor) at the bunkers serving each unit to electronically identify which unit bunker is receiving blended coal at any given time.
- 1.4 Signal outputs from the above equipment will be tied into the coal system computer to provide computation, displays, and storage of the following parameters:
  - 1.4.1 Bituminous coal conveyance rate (2A belt), instantaneous tons per hour;
  - 1.4.2 Sub-bituminous coal feed rate (2B belt), instantaneous tons per hour;
  - 1.4.3 Ratio of sub-bituminous to total coal, instantaneous weight per cent;
  - 1.4.4 Integrated bunker-by-bunker bituminous coal throughput, tons per day;
  - 1.4.5 Integrated bunker-by-bunker sub-bituminous coal throughput, tons per day;
  - 1.4.6 Bunker-by-bunker daily weight ratio of sub-bituminous to total coal throughput, weight per cent.
- 1.5 The coal blend for Units 1 and 2 shall be deemed equivalent to the coal blend for Units 3 and 4 when the following condition is satisfied:

$$1.00 - \left[ \frac{[(M_{sub1.2}) / (M_{sub1.2} + M_{bit1.2})]}{[(M_{sub3.4.5}) / (M_{sub3.4.5} + M_{bit3.4.5})]} \right] \leq 0.10$$

In which:

M = Mass of coal fed to any unit day bunker

M<sub>sub1.2</sub> = Mass of sub-bituminous coal fed to either Unit 1 or 2 day bunker (non-CEMS unit)

M<sub>sub3.4.5</sub> = Mass of sub-bituminous coal fed to either Unit 3, 4 or 5 day bunker (CEMS unit)

M<sub>bit1.2</sub> = Mass of bituminous coal fed to either Unit 1 or 2 day bunker (non-CEMS units)

M<sub>bit3.4.5</sub> = Mass of sub-bituminous coal fed to either Unit 3, 4 or 5 day bunker (CEMS unit)

The term on the left-hand side of this inequality is understood to represent an absolute value (positive number).

## 2. Homogeneity

- 2.1 The coal fed daily to the CEMS and non-CEMS units will be deemed homogenous with respect to SO<sub>2</sub> potential only if the loader operator reclaims coal from consistent general locations within the respective storage piles. For clarity, this means that the operator must build each "ready pile" (one for bituminous and one for sub-bituminous) from coal extracted from one general area of the storage pile. Alternatively, ready piles may consist entirely of newly unloaded coal that has never been taken to long-term storage. Even in this instance, however, the entire ready pile must be composed of new coal, and would probably represent the most homogenous case available. If it becomes necessary to mix freshly unloaded coal with previously stored coal in building a ready pile, the operator must use the loader bucket to homogenize the pile to the extent practicable.

### Attachment G, continued

#### 3. Auxiliary fuel firing

3.1 Sulfur dioxide emissions are influenced significantly by the co-firing of fuels other than coal. Liquid and gaseous fuels have lower sulfur contents than coal and trend to have lower SO<sub>2</sub> emission potentials per unit of calorific value. All boilers at JRPS are capable of firing natural gas at up to 100% of rated capacity (during times of the year when gas is available at sufficient flow and pressure). City Utilities will account for differences in natural gas firing in the CEMS and non-CEMS units by measuring the fuel quantities and applying appropriate correction factors.

3.2 When gas is co-fired, the actual stack emissions from Units 1 and 2 would be calculated as:

$$E_{s,1.2} = (E_{s,3.4} - xE_{G,3.4}) \times \left[ \frac{(1-z)}{(1-x)} \right] + zE_{G,1.2}$$

In which:

$E_{s,1.2}$  = The in-stack SO<sub>2</sub> emission rate for Unit 1 or 2,

$E_{s,3.4}$  = The in-stack SO<sub>2</sub> emission rate for Unit 3 or 4,

$E_{G,1.2}$  = The emission rate for Unit 1 or 2 when burning natural gas alone,

$E_{G,3.4}$  = The emission rate for Unit 3 or 4 when burning natural gas alone,

$x$  = the decimal fraction of the total heat input to Unit 3 or 4 from natural gas, and

$z$  = the decimal fraction of the total heat input to Unit 1 or 2 from natural gas.

This form is simplified considerable by the fact that  $E_{G,1.2}$  and  $E_{G,3.4}$  both approximately equal to 0.0006 lb/MMBtu. Therefore, the additive terms involving these variables multiplied by numbers less than one are insignificant in relation to the monitored emission rates or the 1.5 lb/MMBtu standard. Dropping these insignificant terms yields the corrective equation:

$$E_{s,1.2} = E_{s,3.4} \times \left[ \frac{(1-z)}{1-x} \right]$$

City Utilities will use this simplified equation to correct all emissions data collected by the surrogate monitors.

#### 4. Design and Operational Differences

4.1 Any difference between the SO<sub>2</sub> emission rates on CEMS and non-CEMS units arising from design or operating considerations are bound to be small. This difference will not be deemed important unless and until the monitored/predicted emission rates on Unit 1 or 2 approaches the level of the standard.

4.2 If the non-CEMS unit emission rate ever exceeds 1.25 lb/MMBtu (on a 24-hour basis, exclusive of startup and shutdown), City Utilities will conduct a thirty-day demonstration project to assure the validity of the surrogate monitoring system. This will entail daily composite coal samples representing the day bunker on Unit 1 or 2. City Utilities will use the sulfur and calorific value results, together with mass balance equations found in USEPA's publication AP-42, to calculate a daily theoretical SO<sub>2</sub> emission rate. At the end of thirty days, City Utilities will evaluate the CEMS results against coal sample analysis (CSA) using the Relative Accuracy Test Audit (RATA) procedure in Appendix A of 40 CFR Part 75. For this RATA, the CSA calculated results, in units of the standard, will be considered the reference method (RM) data,  $d_i$  will be the difference between a daily RM value and the corresponding 24-hour average Unit 3 CEMS

### **Attachment G, continued**

- 4.3 value, and n will equal 30. The RATA will be successful if the relative accuracy (RA) does not exceed 20%. In addition, City Utilities will perform the bias test found in Appendix A to ascertain whether a bias adjustment factor must be applied to surrogate monitoring data.
- 4.4 If CEMS and CSA data fail to show acceptable agreement, and the discrepancy persists after bias adjustment, City Utilities will repeat the thirty-day test using a portable certified SO<sub>2</sub> CEM system on Units 1 and 2 to collect RM data.
- 4.5 Failure of the instrumental RATA in paragraph 4.3 will indicate a systematic bias that is significant at emission levels near the standard. Beginning ninety (90) days after the failed RATA, City Utilities will not operate Unit 1 or 2 at an estimated emission rate above 1.25 lb/MMBtu unless the unit is equipped with an SO<sub>2</sub> and diluent gas CEMS meeting the performance specification in Appendix A of 40 CFR Part 75.

### **E. Reporting and record keeping**

1. The quarterly excess emissions report will identify any day for which the coal blend percentage for Units 1 and 2 do not meet the 10% equivalence criterion. Surrogate monitoring may not be used for such days unless the data are adjusted for actual coal blend percentages and known coal quality parameters.
2. If coal is not used as a fuel in Unit 1 or Unit 2 on any day during the quarter, this will be noted on the quarterly report.
3. City Utilities will maintain records of daily coal blending ratios for each day bunker at JRPS. These records will be kept on site and made available for inspection by MDNR for a period of two years after collection.
4. City Utilities will maintain records of fuel usage in each unit, including continuous recordings of the 2A and 2B belt fuel feed rates, for a period of two years. Data will be made available to employees or representative of MDNR upon request.

ATTACHMENT H

## 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:** James River Power Station, ORIS Code: 2161

**Unit IDs:** 3, 4, 5, and GT2

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

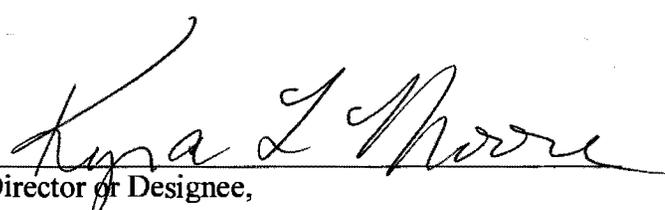
The number of allowances actually held by an affected source in a unit account may differ from the number allocated by the United States Environmental Protection Agency. Pursuant to 40 CFR 72.84, *Automatic permit amendment*, this does not necessitate a revision to any unit SO<sub>2</sub> allowance allocations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

Pursuant to 40 CFR Part 76, the Missouri Department of Natural Resources Air Pollution Control Program approves the Phase II NO<sub>x</sub> Compliance Plan submitted for these units, effective for the life of this permit. In addition to complying with these NO<sub>x</sub> limits, these units shall comply with all other applicable requirements of 40 CFR Part 76, including the requirement to reapply for a NO<sub>x</sub> compliance plan and requirements covering excess emissions.

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

JAN 29 2016

Date

  
Director or Designee,  
Department of Natural Resources



James River  
Facility (Source) Name (from STEP 1)

Acid Rain - 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).

James River  
Facility (Source) Name (from STEP 1)

Acid Rain - Page 3

### **Sulfur Dioxide Requirements, Cont'd.**

**STEP 3, Cont'd.**

- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

### **Nitrogen Oxides Requirements**

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

### **Excess Emissions Requirements**

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

### **Recordkeeping and Reporting Requirements**

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
- (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

James River  
Facility (Source) Name (from STEP 1)

Acid Rain - Page 4

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

STEP 3, Cont'd.

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

**Liability**

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

**Effect on Other Authorities**

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

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

James River  
Facility (Source) Name (from STEP 1)

Acid Rain - Page 5

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

STEP 3, Cont'd.

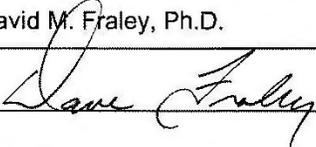
to applicable National Ambient Air Quality Standards or State Implementation Plans;

- (2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

**Certification**

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

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

Name	David M. Fraley, Ph.D.	
Signature		Date 05-24-13



United States  
Environmental Protection Agency  
Acid Rain Program

OMB No. 2060-0258  
Approval expires 11/30/2012

## Phase II NO<sub>x</sub> Compliance Plan

For more information, see instructions and refer to 40 CFR 76.9  
This submission is:  New  Revised

Page 1 of 2

**STEP 1**  
Indicate plant name, State,  
and ORIS code from NADB,  
if applicable

James River	MO	2161
Plant Name	State	ORIS Code

**STEP 2**

Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable.  
Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit.

ID#	Type								
3	DBW	4	DBW	5	DBW				

(a) Standard annual average emission limitation of 0.50 lb/mmBtu (for Phase I dry bottom wall-fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Standard annual average emission limitation of 0.46 lb/mmBtu (for Phase II dry bottom wall-fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase II tangentially fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) Standard annual average emission limitation of 0.68 lb/mmBtu (for cell burner boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(i) Standard annual average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(j) NO <sub>x</sub> Averaging Plan (include NO <sub>x</sub> Averaging form)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(k) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(l) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(B) with NO <sub>x</sub> Averaging (check the NO <sub>x</sub> Averaging Plan box and include NO <sub>x</sub> Averaging form)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**James River**  
Plant Name (from Step 1)

STEP 2, cont'd.

ID#	ID#	ID#	ID#	ID#	ID#
Type	Type	Type	Type	Type	Type

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

<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					

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

Standard Requirements

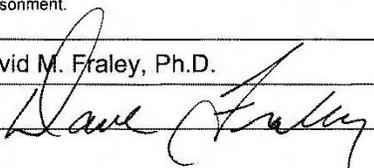
**General.** This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Permit.

Special Provisions for Early Election Units

**Nitrogen Oxides.** A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO<sub>x</sub> as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(ii).  
**Liability.** The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.  
**Termination.** An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO<sub>x</sub> for Phase II units with Group 1 boilers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO<sub>x</sub> for Phase II units with Group 1 boilers under 40 CFR 76.7.

Certification

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

Name	David M. Ffaley, Ph.D.	
Signature		Date 05-24-13



United States  
Environmental Protection Agency  
Acid Rain Program

OMB No. 2060-0258  
Approval expires 11/30/2012

## Phase II NO<sub>x</sub> Averaging Plan

For more information, see instructions and refer to 40 CFR 76.11 Page 1

This submission is:  New  Revised Page 1 of 2

### STEP 1

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

Plant Name	State	ID#	(a) Emission Limitation	(b) ACEL	(c) Annual Heat Input Limit
James River	MO	3	0.50	0.60	4,200,000
James River	MO	4	0.50	0.60	4,782,000
James River	MO	5	0.50	0.50	8,031,000
John Twitty	MO	1	0.50	0.40	9,050,000

### STEP 2

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

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

0.50

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

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

0.50

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

≤

Where,

- R<sub>Li</sub> = Alternative contemporaneous annual emission limitation for unit i, in lb/mmBtu, as specified in column (b) of Step 1;
- R<sub>ii</sub> = Applicable emission limitation for unit i, in lb/mmBtu, as specified in column (a) of Step 1;
- HI<sub>i</sub> = Annual heat input for unit i, in mmBtu, as specified in column (c) of Step 1;
- n = Number of units in the averaging plan

James River - John Twitty  
Plant Name (from Step 1)

NO<sub>x</sub> Averaging - Page 2

**STEP 3**

Mark one of the two options and enter dates.

This plan is effective for calendar year 2014 through calendar year 2016

unless notification to terminate the plan is given.

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

**STEP 4**

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

**Special Provisions**

Emission Limitations

Each affected unit in an approved averaging plan is in compliance with the Acid Rain emission limitation for NO<sub>x</sub> under the plan only if the following requirements are met:

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

Liability

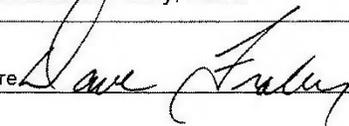
The owners and operators of a unit governed by an approved averaging plan shall be liable for any violation of the plan or this section at that unit or any other unit in the plan, including liability for fulfilling the obligations specified in part 77 of this chapter and sections 113 and 411 of the Act.

Termination

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

**Certification**

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

Name	David M. Fraley, Ph.D.	
Signature		Date
		05.24.13

**ATTACHMENT I**

The Clean Air Interstate Rule (CAIR) has recently been replaced by the Cross State Air Pollution Rule (CSAPR), however a CAIR Permit is being issued to James River Power Plant because the CAIR regulations have not been removed from the Missouri State Implementation Plan (SIP) at this time. Once the CAIR regulations are removed from the SIP, the CAIR permit can be removed from the operating permit. Stalene Power Plant is not required to hold CAIR allowances and therefore no violation of CAIR is possible.

**TITLE V: CLEAN AIR INTERSTATE  
RULE (CAIR) PERMIT**

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

**Installation Name:** James River Power Station (ORIS Code: 2161)  
**Unit IDs:** 3, 4, 5, GT1 and GT2

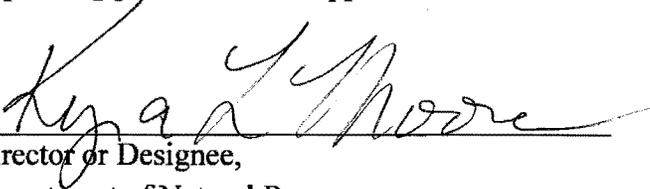
The permit application submitted for this source, as corrected by the State of Missouri Department of Natural Resources' Air Pollution Control Program, Operating Permit Section, is attached. The owners and operators of this source must comply with the standard requirements and special provisions set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

This CAIR Permit applies only to units 3, 4, 5, GT1 and GT2 City Utilities of Springfield – James River Power Station (Facility ID 077-0005).

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

**JAN 29 2016**

Date

  
Director or Designee,  
Department of Natural Resources

**ATTACHMENT I**

The Clean Air Interstate Rule (CAIR) has recently been replaced by the Cross State Air Pollution Rule (CSAPR), however a CAIR Permit is being issued to James River Power Plant because the CAIR regulations have not been removed from the Missouri State Implementation Plan (SIP) at this time. Once the CAIR regulations are removed from the SIP, the CAIR permit can be removed from the operating permit. Stateline Power Plant is not required to hold CAIR allowances and therefore no violation of CAIR is possible.

**TITLE V: CLEAN AIR INTERSTATE  
RULE (CAIR) PERMIT**

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

**Installation Name:** James River Power Station (ORIS Code: 2161)  
**Unit IDs:** 3, 4, 5, GT1 and GT2

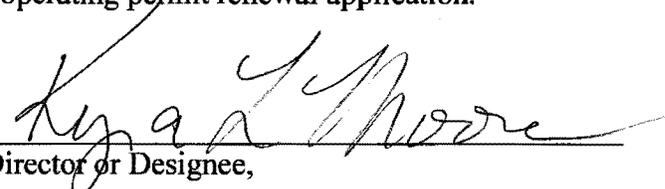
The permit application submitted for this source, as corrected by the State of Missouri Department of Natural Resources' Air Pollution Control Program, Operating Permit Section, is attached. The owners and operators of this source must comply with the standard requirements and special provisions set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

This CAIR Permit applies only to units 3, 4, 5, GT1 and GT2 City Utilities of Springfield – James River Power Station (Facility ID 077-0005).

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

**JAN 29 2016**

Date

  
Director or Designee,

Department of Natural Resources

# CAIR Permit Application

(for sources covered under a CAIR SIP)

Page 1

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

This submission is:  New  Revised

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

Plant Name	James River	State	MO	ORIS/Facility Code	2161
------------	-------------	-------	----	--------------------	------

**STEP 2**  
Enter the unit ID# for each CAIR unit and indicate to which CAIR programs each unit is subject (by placing an "X" in the column)

Unit ID#	NO <sub>x</sub> Annual	SO <sub>2</sub>	NO <sub>x</sub> Ozone Season
3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
**GT1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
**GT2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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

**Standard Requirements**

(a) Permit Requirements.  
 (1) The CAIR designated representative of each CAIR NO<sub>x</sub> source, CAIR SO<sub>2</sub> source, and CAIR NO<sub>x</sub> Ozone Season source (as applicable) required to have a title V operating permit and each CAIR NO<sub>x</sub> unit, CAIR SO<sub>2</sub> unit, and CAIR NO<sub>x</sub> Ozone Season unit (as applicable) required to have a title V operating permit at the source shall:  
 (i) Submit to the permitting authority a complete CAIR permit application under §96.122, §96.222, and §96.322 (as applicable) in accordance with the deadlines specified in §96.121, §96.221, and §96.321 (as applicable); and  
 (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.  
 (2) The owners and operators of each CAIR NO<sub>x</sub> source, CAIR SO<sub>2</sub> source, and CAIR NO<sub>x</sub> Ozone Season source (as applicable) required to have a title V operating permit and each CAIR NO<sub>x</sub> unit, CAIR SO<sub>2</sub> unit, and CAIR NO<sub>x</sub> Ozone Season unit (as applicable) required to have a title V operating permit at the source shall have a CAIR permit issued by the permitting authority under subpart CC, CCC, and CCCC (as applicable) of 40 CFR part 96 for the source and operate the source and the unit in compliance with such CAIR permit.  
 (3) Except as provided in subpart II, III, and IIII (as applicable) of 40 CFR part 96, the owners and operators of a CAIR NO<sub>x</sub> source, CAIR SO<sub>2</sub> source, and CAIR NO<sub>x</sub> Ozone Season source (as applicable) that is not otherwise required to have a title V operating permit and each CAIR NO<sub>x</sub> unit, CAIR SO<sub>2</sub> unit, and CAIR NO<sub>x</sub> Ozone Season unit (as applicable) that is not otherwise required to have a title V operating permit are not required to submit a CAIR permit application, and to have a CAIR permit, under subpart CC, CCC, and CCCC (as applicable) of 40 CFR part 96 for such CAIR NO<sub>x</sub> source, CAIR SO<sub>2</sub> source, and CAIR NO<sub>x</sub> Ozone Season source (as applicable) and such CAIR NO<sub>x</sub> unit, CAIR SO<sub>2</sub> unit, and CAIR NO<sub>x</sub> Ozone Season unit (as applicable).

James River  
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<sub>x</sub> source, CAIR SO<sub>2</sub> source, and CAIR NO<sub>x</sub> Ozone Season source (as applicable) and each CAIR NO<sub>x</sub> unit, CAIR SO<sub>2</sub> unit, and CAIR NO<sub>x</sub> 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<sub>x</sub> source, CAIR SO<sub>2</sub> source, and CAIR NO<sub>x</sub> Ozone Season source (as applicable) with the CAIR NO<sub>x</sub> emissions limitation, CAIR SO<sub>2</sub> emissions limitation, and CAIR NO<sub>x</sub> 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<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall hold, in the source's compliance account, CAIR NO<sub>x</sub> 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<sub>x</sub> units at the source, as determined in accordance with subpart HH of 40 CFR part 96.

(2) A CAIR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> allowance was allocated.

(4) CAIR NO<sub>x</sub> allowances shall be held in, deducted from, or transferred into or among CAIR NO<sub>x</sub> Allowance Tracking System accounts in accordance with subparts FF, GG, and II of 40 CFR part 96.

(5) A CAIR NO<sub>x</sub> allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO<sub>x</sub> Annual Trading Program. No provision of the CAIR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> allowance to or from a CAIR NO<sub>x</sub> source's compliance account is incorporated automatically in any CAIR permit of the source that includes the CAIR NO<sub>x</sub> unit.

Sulfur dioxide emission requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall hold, in the source's compliance account, a tonnage equivalent of CAIR SO<sub>2</sub> 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 SO<sub>2</sub> units at the source, as determined in accordance with subpart HHH of 40 CFR part 96.

(2) A CAIR SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> allowance was allocated.

(4) CAIR SO<sub>2</sub> allowances shall be held in, deducted from, or transferred into or among CAIR SO<sub>2</sub> Allowance Tracking System accounts in accordance with subparts FFF, GGG, and III of 40 CFR part 96.

(5) A CAIR SO<sub>2</sub> allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO<sub>2</sub> Trading Program. No provision of the CAIR SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> allowance to or from a CAIR SO<sub>2</sub> source's compliance account is incorporated automatically in any CAIR permit of the source that includes the CAIR SO<sub>2</sub> 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<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO<sub>x</sub> 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<sub>x</sub> Ozone Season units at the source, as determined in accordance with subpart HHHH of 40 CFR part 96.

(2) A CAIR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> Ozone Season allowance was allocated.

(4) CAIR NO<sub>x</sub> Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System accounts in accordance with subparts FFFF, GGGG, and IIII of 40 CFR part 96.

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

(6) A CAIR NO<sub>x</sub> 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<sub>x</sub> Ozone Season allowance to or from a CAIR NO<sub>x</sub> Ozone Season source's compliance account is incorporated automatically in any CAIR permit of the source.

James River  
Plant Name (from Step 1)

CAIR Permit Application  
Page 3

STEP 3,  
continued

(d) Excess emissions requirements.

If a CAIR NO<sub>x</sub> source emits nitrogen oxides during any control period in excess of the CAIR NO<sub>x</sub> emissions limitation, then:

(1) The owners and operators of the source and each CAIR NO<sub>x</sub> unit at the source shall surrender the CAIR NO<sub>x</sub> 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 SO<sub>2</sub> source emits sulfur dioxide during any control period in excess of the CAIR SO<sub>2</sub> emissions limitation, then:

(1) The owners and operators of the source and each CAIR SO<sub>2</sub> unit at the source shall surrender the CAIR SO<sub>2</sub> 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<sub>x</sub> Ozone Season source emits nitrogen oxides during any control period in excess of the CAIR NO<sub>x</sub> Ozone Season emissions limitation, then:

(1) The owners and operators of the source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall surrender the CAIR NO<sub>x</sub> 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<sub>x</sub> source, CAIR SO<sub>2</sub> source, and CAIR NO<sub>x</sub> Ozone Season source (as applicable) and each CAIR NO<sub>x</sub> unit, CAIR SO<sub>2</sub> unit, and CAIR NO<sub>x</sub> 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<sub>x</sub> unit, CAIR SO<sub>2</sub> unit, and CAIR NO<sub>x</sub> 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<sub>x</sub> Annual Trading Program, CAIR SO<sub>2</sub> Trading Program, and CAIR NO<sub>x</sub> 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<sub>x</sub> Annual Trading Program, CAIR SO<sub>2</sub> Trading Program, and CAIR NO<sub>x</sub> Ozone Season Trading Program (as applicable) or to demonstrate compliance with the requirements of the CAIR NO<sub>x</sub> Annual Trading Program, CAIR SO<sub>2</sub> Trading Program, and CAIR NO<sub>x</sub> Ozone Season Trading Program (as applicable).

(2) The CAIR designated representative of a CAIR NO<sub>x</sub> source, CAIR SO<sub>2</sub> source, and CAIR NO<sub>x</sub> Ozone Season source (as applicable) and each CAIR NO<sub>x</sub> unit, CAIR SO<sub>2</sub> unit, and CAIR NO<sub>x</sub> Ozone Season unit (as applicable) at the source shall submit the reports required under the CAIR NO<sub>x</sub> Annual Trading Program, CAIR SO<sub>2</sub> Trading Program, and CAIR NO<sub>x</sub> Ozone Season Trading Program (as applicable) including those under subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96.

(f) Liability.

(1) Each CAIR NO<sub>x</sub> source, CAIR SO<sub>2</sub> source, and CAIR NO<sub>x</sub> Ozone Season source (as applicable) and each NO<sub>x</sub> unit, CAIR SO<sub>2</sub> unit, and CAIR NO<sub>x</sub> Ozone Season unit (as applicable) shall meet the requirements of the CAIR NO<sub>x</sub> Annual Trading Program, CAIR SO<sub>2</sub> Trading Program, and CAIR NO<sub>x</sub> Ozone Season Trading Program (as applicable).

(2) Any provision of the CAIR NO<sub>x</sub> Annual Trading Program, CAIR SO<sub>2</sub> Trading Program, and CAIR NO<sub>x</sub> Ozone Season Trading Program (as applicable) that applies to a CAIR NO<sub>x</sub> source, CAIR SO<sub>2</sub> source, and CAIR NO<sub>x</sub> Ozone Season source (as applicable) or the CAIR designated representative of a CAIR NO<sub>x</sub> source, CAIR SO<sub>2</sub> source, and CAIR NO<sub>x</sub> Ozone Season source (as applicable) shall also apply to the owners and operators of such source and of the CAIR NO<sub>x</sub> units, CAIR SO<sub>2</sub> units, and CAIR NO<sub>x</sub> Ozone Season units (as applicable) at the source.

(3) Any provision of the CAIR NO<sub>x</sub> Annual Trading Program, CAIR SO<sub>2</sub> Trading Program, and CAIR NO<sub>x</sub> Ozone Season Trading Program (as applicable) that applies to a CAIR NO<sub>x</sub> unit, CAIR SO<sub>2</sub> unit, and CAIR NO<sub>x</sub> Ozone Season unit (as applicable) or the CAIR designated representative of a CAIR NO<sub>x</sub> unit, CAIR SO<sub>2</sub> unit, and CAIR NO<sub>x</sub> Ozone Season unit (as applicable) shall also apply to the owners and operators of such unit.

James River  
Plant Name (from Step 1)

CAIR Permit Application  
Page 4

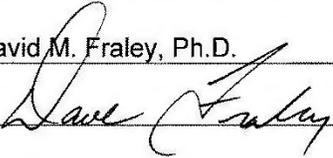
**STEP 3,  
continued**

(g) Effect on Other Authorities.

No provision of the CAIR NO<sub>x</sub> Annual Trading Program, CAIR SO<sub>2</sub> Trading Program, and CAIR NO<sub>x</sub> 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<sub>x</sub> source, CAIR SO<sub>2</sub> source, and CAIR NO<sub>x</sub> Ozone Season source (as applicable) or CAIR NO<sub>x</sub> unit, CAIR SO<sub>2</sub> unit, and CAIR NO<sub>x</sub> 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 David M. Fraley, Ph.D.	
Signature 	Date 05.24.13

## STATEMENT OF BASIS

### INSTALLATION DESCRIPTION

James River Power Station is a steam electric generation facility owned and operated by City Utilities of Springfield, Missouri. The installation consists of five boilers with a gross electrical output capacity of 255 MW. In addition, the installation is equipped with two natural gas-fired combustion turbines with nameplate capacities of 75 and 80 megawatts and a natural gas-fired building heat boiler. In order to comply with environmental rules and regulations, the facility has made the decision to discontinue the use of coal as a fuel source and has taken voluntary limits within the operating permit to burn only natural gas in the boilers. The facility has also taken a voluntary limit on HAPs emissions to maintain area source status. This installation is on the list of named sources therefore fugitive emissions are included in the calculations for potential-to-emit.

### Updated Potential to Emit for the Installation

Pollutant	Potential to Emit (tons/yr) <sup>1</sup>
CO	3,390
CO <sub>2</sub> e	>100,000 (major)
HAP	>10/25
NO <sub>x</sub>	9,083
PM <sub>10</sub>	1,070
PM <sub>2.5</sub>	N/D (major)
SO <sub>x</sub>	32,157
VOC	147

<sup>1</sup>The PTE was taken from the most recent construction permit, permit no. 062013-009. It does not take into account that the boilers are limited to burning 100% natural gas since the facility is still physically capable of using coal. Once the conversion of the Boilers to natural gas-only has taken place and the coal and ash handling operations have been removed, the PTE may be recalculated.

### Reported Air Pollutant Emissions, tons per year

Reported Air Pollutant Emissions, tons per year					
Pollutants	2014	2013	2012	2011	2010
Particulate Matter ≤ Ten Microns (PM <sub>10</sub> )	267.19	282.02	278.55	398.21	507.77
Particulate Matter ≤ 2.5 Microns (PM <sub>2.5</sub> )	203.98	191.57	175.13	238.54	336.55
Sulfur Oxides (SO <sub>x</sub> )	1,792.68	1,846.47	1,723.7	3,268.8	4,488.2
Nitrogen Oxides (NO <sub>x</sub> )	984.95	892.89	879.28	1,434.5	2,115.3
Volatile Organic Compounds(VOC)	13.98	13.12	15.11	20.09	29.68
Carbon Monoxide (CO)	427.41	364.07	425.30	697.56	1,365.3

<b>Reported Air Pollutant Emissions, tons per year</b>					
Pollutants	2014	2013	2012	2011	2010
Lead (Pb)	0.01	0.01	0.01	0.03	0.12
Hazardous Air Pollutants (HAPs)	10.17	9.61	8.17	14.45	21.46
Ammonia (NH <sub>3</sub> )	0.01	0.02	0.38	0.57	4.71

**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 May 31, 2013; revised November 24, 2015
- 2) 2012 Emissions Inventory Questionnaire, received April 30, 2013;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition;
- 4) 2001 Consent Agreement;
- 5) Compliance Assurance Monitoring (CAM) Plan;
- 6) Construction Permit 1085-002A, issued October 7, 1985;
- 7) Construction Permit 0888-002A, issued August 15, 1988;
- 8) Construction Permit 0391-002, issued March 6, 1991;
- 9) Construction Permit 0697-008, issued May 27, 1997;
- 10) Construction Permit 042000-016, issued April 14, 2000;
- 11) Construction Permit 082001-003, issued July 12, 2001;
- 12) Construction Permit 032003-017, issued January 31, 2003;
- 13) Construction Permit 102006-006, issued October 10, 2006;
- 14) Construction Permit 032007-003, issued March 8, 2007;
- 15) Construction Permit 262007-002, issued June 4, 2007;
- 16) Construction Permit 062013-009, issued June 19, 2013;
- 17) Acid Rain Permit Application; and
- 18) CAIR Application

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

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

None.

**Other Air Regulations Determined Not to Apply to the Operating Permit**

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

10 CSR 10-6.100, *Alternate Emission Limits*

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

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

These rules are no longer applicable due to the implementation of the Clean Air Interstate Rule (CAIR) Program.

10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds* does not apply to this facility because it was rescinded on November 30, 2015.

**Construction Permit Revisions**

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

- 1) Construction Permit 1085-002A authorized the installation of a dry fly ash collection system which consisted of pneumatic pipeline conveyors from the precipitator hoppers of boilers 3, 4, and 5 to a storage silo.
  - a) This permit established a maximum fly ash collection limit, along with record keeping and reporting requirements. However, these requirements are no longer applicable and were not included in the operating permit because the fly ash system was replaced. In 2003, construction permit 032003-017 was issued which authorized a new Fly Ash Collection System that pneumatically conveys the fly ash from the electrostatic precipitators to dry storage silos.
- 2) Construction Permit 0888-002A authorized the construction of Combustion Turbine 1 (EU-11).
  - a) This permit established several special conditions. However, these special conditions were not included in this operating permit because construction permit 0391-002 revised the special conditions applicable to Combustion Turbine 1.
- 3) Construction Permit 0391-002 authorized the construction of Combustion Turbine 2 (EU-12) and revised the conditions for Combustion Turbine 1.
  - a) This permit listed 10 CSR 10-4.190 *Restriction of Emission of Sulfur Compounds from Indirect Heating Sources* as an applicable requirement. However, this regulation was rescinded on July 30, 1997.
  - b) Special Condition 12 on the permit states “Through 10 CSR 10-6.070, Combustion Turbine #1 and Combustion Turbine #2 are subject to the requirement of 40 CFR 60.334(c). The notification and recordkeeping of requirements of 40 CFR 60.7(c) shall be adhered to as they pertain to 40 CFR 60.334(c). Briefly, this requires that quarterly reports be submitted to the Director, within 30 days after the end of each quarter, detailing any exceedances of applicable emission limits.” However, 40 CFR 60.334(c) only applies to turbines which do not use steam or water injection to control NO<sub>x</sub> emissions. Combustion Turbine 1 (EU-11) and Combustion Turbine 2 (EU-12) use water injection to control NO<sub>x</sub> emissions. Therefore, this condition was not included in this operating permit.
- 4) Construction Permit 042000-016 authorized the installation of a water fogging system to the air inlet of Combustion Turbine 2 (EU-12).

- 
- a) This permit included special conditions requiring performance testing to be conducted within 90 days after the fogger initial start-up date. These special conditions were not included in this operating permit because the performance testing has already been conducted.
- 5) Construction Permit 082001-003 authorized the modification of the handling capacity of coal unloading system from rail road cars to the storage area, by upgrading feeders and belt drivers.
    - a) The permit listed 10 CSR 10-6.400 *Restriction of Emission of Particulate Matter from Industrial Processes* as an applicable requirement. However, 10 CSR 10-6.400(1)(B)12 exempts grinding, crushing and conveying operations at a power plant. Therefore, this regulation is not applicable to Coal Unloading and Transfer.
    - b) Special Condition 1E of this permit states: “If a continuing situation of demonstrated nuisance odors exists in violation of Missouri State Rule 10 CSR 10-4.070, “Restriction of Emission of Odors”, the Director may require James River Power Station to submit a corrective action plan within ten (10) days adequate to timely and significantly mitigate the odors. James River Power Station shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement such a plan shall be a violation of permit 082001-003 and this permit.” This permit condition was not included in Permit Condition 001 because the same requirement is included in the Core Permit Requirements.
    - c) In 2015 the facility made the decision to limit the boilers to burning 100% natural gas, therefore the special conditions of this construction permit are not included in the operating permit.
  - 6) Construction Permit 032003-017 authorized the modification of the Fly Ash Collection System to a dry pneumatic conveying system.
    - a) The permit listed 10 CSR 10-6.400 *Restriction of Emission of Particulate Matter from Industrial Processes* as an applicable requirement. However, 10 CSR 10-6.400(1)(B)12 exempts grinding, crushing and conveying operations at a power plant. Therefore, this regulation is not applicable to the Fly Ash Collection System.
    - b) This permit was amended on June 18, 2004 (MDNR project 2004-05-124) to account for as-built changes in the fly ash collection system equipment. In the construction permit application, the original design contained a DustMaster™ wet rotary conditioner (agglomerator) with a United Conveyor storage and unloading system. However, the permittee installed a United Conveyor paddle mixer with the same control efficiency as the DustMaster™ agglomerator. In addition, the size of the ash storage tanks was reduced from 300 tons each to 225 tons each.
    - c) In 2015 the facility made the decision to limit the boilers to burning 100% natural gas, however the permittee has requested that the special conditions of this construction permit remain a part of the operating permit.
  - 7) Construction Permit 062007-002 authorized the addition of a coal crusher and fuel oil storage tank
    - a) The permit listed 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants* as an applicable requirement. However this rule does not apply to the coal crusher because it is subject to an opacity standard under 40 CFR Part 60 Subpart Y, therefore this regulation is not applicable to the coal crusher.
    - b) The permit also listed 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter from Industrial Processes* as an applicable requirement. However 10 CSR 10-6.400 specifically exempts grinding, crushing and conveying operations at a power plant, therefore this regulation is not applicable.

- c) In 2015 the facility made the decision to limit the boilers to burning 100% natural gas, therefore the special conditions of this construction permit are not included in the operating permit.
- 8) Construction Permit 032007-003 authorized the replacement of existing Over-Fire Air (OFA) combustion controls and the upgrade of existing burner configuration on Units 3, 4 and 5.
- a) The permit listed 10 CSR 10-6.350, *Emission Limitations and Emissions Trading of Oxides of Nitrogen* as applicable. However this rule is no longer applicable due to the implementation of the Clean Air Interstate Rule (CAIR) program, therefore it was not included in the operating permit.

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

- 1) 40 CFR Part 60 Subpart K, *Standards of Performance For Storage Vessels For Petroleum Liquids For Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior To May 19, 1978* is not applicable to the 587,200-gallon storage tank (EP10) which was constructed after May 19, 1973 and prior to May 19, 1978 because the storage tank stores fuel oil No. 2 which is not included in the definition of “petroleum liquids”.
- 2) 40 CFR Part 60 Subpart Ka, *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984* and 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* are not applicable to the 587,200-gallon storage tank (EP10) because the storage tank was constructed prior to May 19, 1978. There are no other tanks at the installation that meet the applicability requirements of these regulations.
- 3) 40 CFR Part 60 Subpart D, *Standards of Performance for Fossil Fuel Fired Steam Generators constructed after August 17, 1971*, 40 CFR Part 60 Subpart Da, *Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978*, 40 CFR Part 60 Subpart Db, *Standards of Performance for Industrial, Commercial, Institutional Steam Generating Units for Which Construction is Commenced After June 19, 1984* are not applicable to Boilers No. 1 through 5 because they were all constructed prior to the regulations’ applicability dates.
- 4) 40 CFR Part 60 Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units constructed after June 9, 1989* applies to EU-165 Building Heat Boiler and EU-225 and 226 Water Bath Vaporizers.
- 5) 40 CFR Part 60 Subpart Y, *Standards of Performance for Coal Preparation Plants* is not applicable to this facility because all boilers are limited to burning 100% natural gas and there is no coal processed at this facility at this time.
- 6) 40 CFR Part 60 Subpart GG, *Standards of Performance for Stationary Gas Turbines* is applicable to Combustion Turbines 1 and 2 (EU-11 and EU-12). However, the NO<sub>x</sub> emissions limitations in subpart GG are less stringent than the emission limitations required by construction permit 0391-002. (See calculations under Other Regulatory Determinations, bullet 4) Therefore, the more stringent NO<sub>x</sub> emission limitations established by construction permit 0391-002 included in the operating permit.

- 7) 40 CFR Part 60 Subpart KKKK, *Standards of Performance for Stationary Combustion Turbines* is not applicable to Combustion Turbines 1 and 2 (EU-11 and EU-12) because the proposed rule would apply to new stationary combustion turbines that commenced construction, modification, or reconstruction after February 18, 2005. Unless, the installation modifies or reconstructs the installation's combustion turbines, this regulation should not apply.
- 8) 40 CFR Part 60 Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* does not apply to emergency fire pump (EU-127) because it was installed prior to July 11, 2005.
- 9) 40 CFR 60 Subpart JJJJ, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines* does not apply to the emergency fire pump (EU-127) because it was installed prior to June 12, 2006. Further, the emergency fire-pump (EU-127) is not a spark ignition ICE.

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

- 1) 40 CFR Part 63 Subpart ZZZZ, *National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines* is applicable to EU-127 Emergency Fire Pump and has been applied within this permit (see Permit Condition 013). Although the installation will become an area source of HAP after January 30, 2016 (see Permit Condition PW002), the installation was a major source on the compliance date for MACT ZZZZ and; therefore, must continue to comply with the major source provisions of MACT ZZZZ (once in, always in policy).
- 2) 40 CFR Part 63 Subpart DDDDD, *National Emission Standards For Hazardous Air Pollutants For Industrial, Commercial, And Institutional Boilers And Process Heaters* is not applicable to this facility because it has taken a voluntary limit on HAP emissions prior to the applicability date of the MACT, to be considered an area source of HAPs.
- 3) 40 CFR part 63 Subpart YYYYY, *National Emission Standards For Hazardous Air Pollutants For Stationary Combustion Turbines* is not applicable to Combustion Turbines 1 (EU-11) and Combustion Turbine 2 (EU-12) because they are existing stationary turbines and per 40 CFR 63.6090(b)(4) existing stationary combustion turbines in all subcategories do not have to meet the applicability requirements of subpart YYYYY and of subpart A of part 63. In addition, no initial notification is necessary for any existing stationary combustion turbine.
- 4) 40 CFR Part 63 Subpart UUUUU, *National Emission Standards for Coal- and Oil- Fired Electric Utility Steam Generating Units* does not apply to this facility because the boilers are limited to burning 100% natural gas. If the boilers return to using coal as fuel they will become subject to this regulation.
- 5) 40 CFR Part 63 Subpart JJJJJ, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* does not apply to Boilers #1 through 5 or the Building Heat Boiler because they burn 100% natural gas.
- 6) 40 CFR Part 63 Subpart CCCCC, *National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities* applies to EU27 – 500 gallon gasoline storage tank

used for fueling vehicles because of the voluntary plantwide HAPs emission limit which makes the installation an area source of HAPs.

### **National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

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. City Utilities has a Business Exemption for minor projects. The current exemption registration number is E020 which expired December 31, 2014. City Utilities is currently processing the renewal.

### **Compliance Assurance Monitoring (CAM) Applicability**

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

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

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

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

### **Greenhouse Gas Emissions**

Note that this source is subject to the Greenhouse Gas Reporting Rule. However, the preamble of the GHG Reporting Rule clarifies that Part 98 requirements do not have to be incorporated in Part 70 permits operating permits at this time. In addition, Missouri regulations do not require the installation to report CO<sub>2</sub> emissions in their Missouri Emissions Inventory Questionnaire; therefore, the installation's CO<sub>2</sub> emissions were not included within this permit. The applicant is required to report the data directly to EPA. The public may obtain CO<sub>2</sub> emissions data for this installation by visiting <http://epa.gov/ghgreporting/ghgdata/reportingdatasets.html>.

### **Other Regulatory Determinations**

- 1) 10 CSR 10-6.405, *Maximum Allowable Emission of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating* is not applicable to the boilers because they are limited to burning 100% natural gas and are therefore exempt according to 10 CSR 10-6.405(1)(E).
- 2) 10 CSR 10-6.220, *Restriction of Emissions of Visible Air Contaminants*
  - a) Combustion Turbines 1 and 2 (EU-11 and EU12) are not subject to 10 CSR 10-6.220 because per 10 CSR 10-6.220 (1)(A), internal combustion engines operated outside the Kansas City or St. Louis metropolitan area are exempt. Other natural gas combustion sources that are subject to this rule are not required to perform any monitoring or recordkeeping because natural gas combustion does not produce visible emissions in quantities that will violate the emission standard.
- 3) 10 CSR 10-6.261, *Control of Sulfur Dioxide Emissions* does not apply to Combustion Turbines 1 and 2 (EU-11 and EU-12) because they are subject to 10 CSR 10-6.070, 40 CFR Part 60 Subpart GG

and are therefore exempt from this regulation. Boilers #1 through 5 are not subject to this rule because they are limited to burning 100% natural gas and are exempt according to 10 CSR 10-6.261(1)(A). EU-127 Emergency Fire Pump is not subject to this rule according to 10 CSR 10-6.261(1)(C)2. which exempts units that are subject to a more restrictive fuel sulfur content that is federally enforceable. Permit Condition PW001 limits the installation to using fuel oil with a sulfur content less than 0.1% which is more restrictive than the limits in this regulation.

- 4) 40 CFR Part 60, Subpart GG, *Standards of Performance for Stationary Gas Turbines* is applicable to Combustion Turbines 1 and 2 (EU-11 and EU-12). However, as shown in calculations below, the NO<sub>x</sub> emission limits established in Construction Permit 0391-002 are more restrictive.

Allowable Emission Rate per 40 CFR 60.332(a)(1)

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

Where:

STD = allowable NO<sub>x</sub> emissions (% by volume at 15 percent oxygen and on a dry basis)

Y = manufacture's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt-hour.

Calculating Y:

Given:

EU #	Heat input (MMBtu/hr)	Rated load (MW)
EU-11	991	75
EU-12	973	80

$$Y \text{ for EU-11} = (991 \times 10^6 \text{ Btu/hr})(1.0548 \text{ kJ/Btu})(1/72 \times 10^6 \text{ W}) = 14.5 \text{ kJ/W-hr}$$

$$Y \text{ for EU-12} = (973 \times 10^6 \text{ Btu/hr})(1.0548 \text{ kJ/Btu})(1/75 \times 10^6 \text{ W}) = 13.7 \text{ kJ/W-hr}$$

Calculating STD (NO<sub>x</sub> Emission Limit):

Assume no fuel bound N allowance, F=0

$$STD \text{ for EU-11} = (0.0075)(14.4/Y) + F$$

$$= (0.0075)(14.4/14.4)$$

$$= 0.0075 \% \text{ or } 75 \text{ ppmv NO}_x \text{ at } 15 \% \text{ oxygen}$$

$$STD \text{ for EU-12} = (0.0075)(14.4/Y) + F$$

$$= (0.0075)(14.4/13.7)$$

$$= 0.0079 \% \text{ or } 79 \text{ ppmv NO}_x \text{ at } 15 \% \text{ oxygen}$$

Conclusion:

Construction permit 0391-002's limitations of 42 ppm<sub>v</sub> of NO<sub>x</sub> when burning natural gas and 65 ppm<sub>v</sub> when burning No. 2 fuel oil are more restrictive than the 75 and 79 ppm<sub>v</sub> NO<sub>x</sub> limitations calculated based on subpart GG. Therefore meeting construction permit 0391-002's NO<sub>x</sub> limitations satisfies subpart GG.

- 5) 2001 Consent Agreement Paragraph 5 required the permittee to maintain records of monitoring data, fuel analysis data, fuel consumption, and CEMS QA/QC for two (2) years. This has been changed to five (5) years.
- 6) City of Springfield Code, Chapter 6, Article III, Division 4, *Particulate Matter from Industrial Processes* was not included in this operating permit. Only applicable state and federal regulations were included per Air Pollution Control Program policy.

7) City of Springfield Code, Chapter 6, Article III, Division 2, *Visible Air Contaminants* was not included in this operating permit. Only applicable state and federal regulations were included per Air Pollution Control Program policy.

8) Permit Condition PW002 – Voluntary Plant Wide HAPs limit

The facility has taken a voluntary 10 ton/year limit on individual HAP emissions and a 25 ton/year limit on total HAP emissions in order to avoid becoming subject to 40 CFR Part 63 Subpart DDDDD on January 31, 2016. If the facility maintains hexane emissions below 10 tons/year then the potential to emit for total HAPs is below 25 tons/year. For this reason the only monitoring required for Permit Condition PW002 is to monitor the emissions of hexane and maintain recordkeeping to demonstrate compliance with the 10 ton/year emission limit. The following summary table for potential to emit for HAPs shows that limiting emissions of hexane ensures compliance with the plant-wide HAPs emission limits.

Pollutant	100% Natural Gas PTE (tpy)
Total HAPs	26.71
POM aggregate group	0.050
1,3-Butadiene	0.017
2-Chloronaphthalene	1.18E-06
2-Methylnaphthalene	2.91E-04
3-Methylchloranthrene	2.01E-05
7,12-Dimethylbenzanthracene	1.78E-04
Acenaphthene	1.03E-04
Acenaphthylene	8.50E-05
Acetaldehyde	0.177
Acrolein	0.028
Anthracene	1.74E-04
Benanthracene	2.01E-05
Benzene	0.118
Benzo(a)anthracene	9.85E-05
Benzo(a)pyrene	7.38E-05
Benzo(b)fluoranthene	6.91E-05
Benzo(g,h,i)perylene	1.58E-05
Benzo(k)fluoranthene	7.96E-05
Chrysene	1.30E-04
Dibenzo(a,h)anthracene	1.16E-04
Dichlorobenzene	0.013
Ethylbenzene	0.142
Fluoranthene	2.23E-04
Fluorene	2.90E-04
Formaldehyde	3.980
Hexane	21.190
Indeno(1,2,3-cd)pyrene	1.22E-04
Naphthalene	0.046
Phenanathrene	1.56E-03
Propylene Oxide	0.128
Pyrene	1.77E-04

Toluene	0.614
Xylenes	0.283
Arsenic	2.23E-03
Beryllium	1.34E-04
Cadmium	0.012
Chromium	0.016
Cobalt	9.36E-04
Manganese	4.24E-03
Mercury	2.90E-03
Nickel	0.023
Selenium	2.68E-04

9) Permit Conditions 003 and 004 – August 17, 2001 Consent Agreement

The permittee is voluntarily ceasing the burning of coal in Boilers #1 through 5 which would seem to make the requirements of the August 17, 2001 Consent Agreement practically inapplicable and not necessary to include in the operating permit. However because the consent agreement is a part of the State Implementation Plan (SIP), EPA requires that the conditions of the agreement be included in the operating permit as applicable requirements. JRPS is working with MDNR to remove the consent agreement from the SIP and once that is complete Permit Conditions 003 and 004 may be removed from the operating permit.

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

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

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

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

## Response to Public Comments

The draft Part 70 Operating Permit for City Utilities of Springfield – James River Power Station (077-0005) was placed on public notice as of December 15, 2015 for a 30-day comment period. The public notice was published on the Department of Natural Resources' Air Pollution Control Program's web page at: <http://www.dnr.mo.gov/env/apcp/PermitPublicNotices.htm>. On January 7, 2016 the Air Pollution Control Program received comments from Mark Smith, EPA Region 7. The comments are addressed below in the order in which they appear within the letter.

**Comment #1:** The Installation Description, on the draft Part 70 operating permit cover page, appears to imply that natural gas is the only combustion fuel being used by JRPS. However, Permit Conditions 006, 007, 008, 009 and 011 all include reference to either "dual-fuel" or "diesel" power emission units. Therefore, EPA suggests MDNR-APCP expand the Installation Description by providing additional description of the natural gas burning only emission units and those emission units capable of burning other fuels. Additionally, JRPS is voluntarily taking an operational limitation, on emission units EU-04, EU-05, EU-06, EU-07 and EU-08 (boilers 1 through 5), to limit these five (5) units to the combustion of only natural gas. EPA recommends MDNR-APCP include the reason JRPS is electing this approach in the Installation Description, and clearly indicate that JRPS is no longer permitted to burn coal in emission units EU-04, EU-05, EU-06, EU-07 and EU-08.

**Response to Comment:** The installation description does not state that natural gas is the only fuel burned at this installation but it does state that the decision was made to discontinue coal as a fuel source and that the boilers will burn only natural gas. The turbines are capable of burning both natural gas and fuel oil. The decision to stop burning coal was made in order to comply with environmental rules and regulations and this was added to the installation description in the statement of basis. Permit condition 001 limits the boilers (Emission Units EU-04, EU-05, EU-06, EU-07 and EU-08) to burning only natural gas which means that they are no longer permitted to burn coal.

**Comment #2:** Plant Wide Permit Condition PW001 limits JRPS to burning fuel oils with a sulfur content, not to exceed 0.1 % sulfur by weight; however, the Installation Description says JRPS is voluntarily limiting itself to the burning of 100% natural gas. Therefore, EPA questions whether or not Permit Condition PW001 is an applicable requirement and MDNR-APCP might want to consider removing this permit condition from the operating permit. If, on the other hand, MDNR-APCP intends for Permit Condition PW001 to apply to the combustion turbines and the emergency diesel-fired fire pump, EPA cautions that the sulfur specifications in Permit Condition 009 and Permit Condition 011 might be in conflict. MDNR-APCP should consider the need for a plant wide fuel sulfur limit.

**Response to Comment:** The fuel sulfur content limit in Permit Condition PW001 is intended to apply to those units that use fuel oil, including the turbines and the emergency fire pump. The voluntary 0.1 % sulfur content limit is more stringent than the limit from the construction permit which is included in Permit Condition 009 and this is clarified within the permit condition under *Emission Limitations/Operational Limitations* 6. There is no additional sulfur content limit in Permit Condition 011 for the emergency fire pump.

**Comment #3:** Plant Wide Permit Condition PW002 establishes an annual hazardous air pollutant (HAP) limit of 10 tons individually and 25 tons combined for the "installation." 10 CSR 10-6.020(2)(1)17 defines "installation" as "all source operations, including activities that result in fugitive emissions that belong to the

same industrial grouping and are under the control of the same person." MDNR defines source operations as "emission units" which means any part or activity of an installation that emits or has the potential to emit any regulated air pollutant or any pollutant listed under section 112(b) of the Clean Air Act." The Environmental Protection Agency, in granting a petition request against an operating permit issued to Hu Honua Bioenergy Facility, reaffirms that for purposes of determining the potential to emit (PTE) of a stationary source (installation), the PTE shall encompass the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Thus, emissions from all emission units that are part of an installation must be included in the PTE for compliance determination. Therefore, EPA recommends MDNR-APCP and JRPS include all sources of HAP emissions, in their tracking document (Attachment F), including storage tanks, vents, water heaters, all fuel combustions sources including combustion turbines and emergency fire pump to verify compliance with plant wide HAP emission limits.

**Response to Comment:** Facility PTE calculations for HAP emissions show that when the facility maintains hexane emissions below 10 tons/year then the potential to emit for total HAPs is below 25 tons/year. This is why the only monitoring required for Permit Condition PW002 is to monitor emissions of hexane from all sources of hexane emissions. This is further explained in the statement of basis under Other Regulatory Determinations, item 8. It is stated in the permit on Page 6 that plant wide emissions limitations apply to all emission units at the installation including all emission units listed in Section I under Emission Units with Limitations and Emission Units without Specific Limitations.

**Comment #4:** Permit Condition 001, in this draft Part 70 operating permit, establishes a voluntary limit which restricts JRPS to the burning of 100% natural gas in Emission Units EU-04, EU-05, EU-06, EU-07 and EU-08. However, the operational limitation Permit Condition 001, as written, is not enforceable as a practical matter. Each operating permit requirement must be practicably enforceable and EPA's guidance defines a practically enforceable permit condition as one which details "who," "what," "where," "when," "how," and "how often." Therefore EPA recommends that the operational limitation in Permit Condition 001 be written to say: "Permittee is limited to burning only 100% natural gas in Boiler #1 through Boiler #5." Additionally, Permit Condition 001 fails to include any compliance verification monitoring and/or record keeping. 10 CSR 10-6.065(C)(1)C(I)(b) requires periodic testing or instrumental or non-instrumental monitoring (which may consist of record keeping designed to serve as monitoring) where the applicable requirement does not require periodic monitoring. EPA recommends MDNR-APCP add periodic monitoring to Permit Condition 001 for verification of compliance with the operational limitation.

**Response to Comment:** The Operational Limitation in Permit Condition 001 was rewritten to include the suggested language. Additionally, monitoring and recordkeeping requirements were added to the permit condition that require the permittee to maintain fuel usage reports to demonstrate that natural gas is the only fuel being combusted in Boilers #1 through 5.

**Comment #5:** Permit Conditions 003, 004, and 005 are included in the JRPS draft Part 70 operating permit as applicable requirements associated with a 2001 Consent Agreement between MDNR and JRPS and these Consent Agreement requirements have been incorporated into the approved State Implementation Plan (SIP). The Consent Agreement and its applicable requirements appear to be the result of a SO<sub>2</sub> exceedance during the combustion of coal. JRPS is voluntarily ceasing the burning of coal and therefore these Consent Agreement requirements may no longer be practically applicable. However, EPA recognizes that the requirements are in fact applicable, due to their existence in the SIP and EPA further understands that MDNR is planning to undertake a SIP revision to remove these Consent Agreement requirements. In the interim, EPA recommends that MDNR provide a thorough explanation, in the Statement of Basis, as to the reason(s) for including Permit Conditions 003, 004 and 005 and the process to be followed after an approved SIP revision.

**Response to Comment:** An explanation on the inclusion of the Aug 17, 2001 Consent Agreement has been added to the statement of basis under Other Regulatory Determinations, item 9.

**Comment #6:** Emission limitation/operational limitation 4), in Permit Condition 009, requires performance testing to verify de minimis emission rates for particulate matter, carbon monoxide and volatile organic compounds permitted by Construction Permit 0391-002. It is unclear whether or not this performance test was a one-time event completed in 1991 or an on-going event to be completed on a routine frequency. EPA would suggest that if this performance testing is a one-time event, then this requirement is likely no longer applicable and the results of the performance test should be described in the Statement of Basis. If however, performance testing is an on-going requirement, then MDNR ACP should include the testing requirements in a testing section of Permit Condition 009.

**Response to Comment:** The construction permit does not require on-going or periodic retesting of the units to verify that the de minimis emissions rates for particulate matter, carbon monoxide and VOC will not be exceeded. These tests have already been performed therefore the testing requirements in Emission limitation/operational limitation 4) have been removed from the permit. Furthermore, Items 1) and 2) from Testing requirements are also being removed since the performance testing has been completed for these units.

**Comment #7:** Emission limitation/operational limitation 8), in Permit Condition 009, is initiated if one or more of the baseload **coal-fired** (emphasis added) units at either James River or John Twitty (formerly Southwest) is out of service due to malfunction. In as much as JRPS has eliminated coal-fired units, MDNR-ACPC may need to modify this requirement.

**Response to Comment:** The description of the units as “coal-fired” was removed from the permit. The condition now refers to the boilers as “units”

**Comment #8:** The Construction Permit Revision section in the Statement of Basis indicates, under the discussion of Construction Permit 0391-002, that JRPS uses water injection to control NOx emissions from emission units EU-11 and EU-12. Therefore, it would appear that record keeping/reporting requirement 5) a) ii), in Permit Condition 009, is not an applicable requirement and EPA recommends MDNR-ACPC remove the requirement from the operating permit.

**Response to Comment:** Recordkeeping/Reporting Requirement 5)a)ii) is included in the permit condition as one of several options for compliance with Subpart GG. Although the units use water-injection, the permittee maintains the ability to elect to take an emission allowance for fuel bound nitrogen.

**Comment #9:** Permit Condition 013 incorporates the applicable requirements of 40 CFR part 63, Subpart CCCCCC: *National Emission Standards for Hazardous Air Pollutants for Gasoline Dispensing Facilities* (MACT CCCCCC). Applicable requirements of MACT CCCCCC are based on the gasoline dispensing facility annual throughput. However, Permit Condition 013 lacks any discussion on the JRPS facility annual gasoline throughput. Additionally, Permit Condition 013 fails to include any monitoring and/or record keeping to verify compliance with the annual throughput limits which in turn establish Permit Condition 013 limitations. Finally, the regulatory references, shown in brackets, for emission limitations 1) and 2) and record keeping/reporting requirement 1) are all missing a numeric digit. Emission limitation requirement 1) should be 63.11115(a); emission limitation requirement 2) should be 63.11116(a) and record keeping/recording requirement 1) should be 63.11116(b). EPA recommends MDNR-ACPC amend Permit Condition 013, accordingly.

**Response to Comment:** The requirements from Subpart CCCCCC that are included in permit condition 013 are for gasoline dispensing facilities with a throughput of 10,000 gallons or less per month. The highest annual reported throughput of the gasoline storage tank for vehicle fueling over the past five years was 3,342 gallons in 2012, therefore it is reasonable to expect that vehicle fueling for the plant will not exceed 10,000 gallons per month.

**Comment #10:** Permit Condition 014 and Permit Condition 015 incorporate applicable requirements for emission units EU-160, EU-161 and EU-162. All three of these emission units involve the collection and handling of fly ash resulting from coal combustion. JRPS is requesting a voluntary limitation to burn 100% natural gas and therefore it would appear that fly ash handling is no longer applicable and Permit Conditions 014 and 015 are also likely no longer applicable. EPA recommends MDNR-APCP remove the non-applicable permit conditions from the JRPS operating permit.

**Response to Comment:** Permit Conditions 014 and 015 were included in the operating permit by request of the permittee. Although Boilers #1 through 5 are ceasing burning coal as a fuel as of Jan 31, 2016, there may be some fly ash handling and collection that is needed after that date. The permit may be updated to remove these conditions in the future.