



Missouri Department of Natural Resources
Air Pollution Control Program

PART 70 PERMIT TO OPERATE

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

Operating Permit Number: OP2008-045
Expiration Date: SEP 17 2013
Installation ID: 027-0026
Project Number: 2003-01-010

Installation Name and Address

Union Electric Co. - Callaway Plant
Missouri Highway CC
Portland, MO 65251
Callaway County

Parent Company's Name and Address

Ameren Corporation
P.O. Box 66149, MC-602
St. Louis, MO 63166

Installation Description:

The Union Electric Company's Callaway Plant is an electrical generating installation located in Callaway County. The principal component at this facility is a pressurized water nuclear reactor used to generate electricity. However, the reactor is not a source of air emissions. The emission units at the facility are ancillary to the reactor.

SEP 18 2008

Effective Date


Director or Designee
Department of Natural Resources

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Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

The Union Electric Company's Callaway Plant is an electrical generating installation located in Callaway County. Operations at the installation include, but are not limited to, a pressurized water nuclear reactor (not a source of air emissions), an auxiliary boiler, numerous emergency electrical generators and storage tanks.

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM-10)	Sulfur Oxides (SO _x)	Nitrogen Oxides (NO _x)	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2005	1.47	11.91	35.41	1.49	8.03	--	--
2004	0.59	7.45	16.82	0.46	3.92	--	--
2003	0.52	1.51	11.23	0.52	2.53	--	--
2002	0.85	3.24	22.03	0.79	5.05	--	--
2001	0.60	3.80	18.00	0.50	4.20	--	--

EMISSION UNITS WITH LIMITATIONS

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

Emission Unit #	Description of Emission Unit
EU0010	Auxiliary Boiler
EU0020	Emergency Diesel Generator A
EU0030	Emergency Diesel Generator B
EU0040	Security Emergency Diesel Generator
EU0050	TSC Emergency Diesel Generator
EU0060	EOF Emergency Diesel Generator
EU0070	Fire Protection Emergency Diesel Pump A
EU0080	Fire Protection Emergency Diesel Pump B

EMISSION UNITS WITHOUT LIMITATIONS

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

Description of Emission Source
Ten Fuel Oil and Gasoline Portable Pumps for Various Feed Water, Oil, Lubricating and Maintenance Systems (IA-4)
Ten Portable Gasoline Generators used for Equipment Power at Various Locations for Maintenance or Start-up Activities (IA-5)

Description of Emission Source

Emergency Propane Generator for Microwave Tower (IA-7, 111.5 hp, Onan 55.0 EN, Purchase Order Date 07/21/1983)
Emergency Propane Generator for Meteorological Tower (IA-8, 7.5kW, Onan JB-3DR/8389T, Purchase Order Date 05/04/1972)
Portable Diesel Generator A (B-9, 180 kW, Kohler 180ROZJ, Installed in 1995)
Portable Diesel Generator B (B-10, 180 kW, Onan 175DFE, Installed in 2003)
Two Parts Washers (IA-6, Installed prior to 1997)
300,000-gallon Auxiliary Boiler Fuel Tank (IA-1, Field-Erected, Installed in 1977)
Two 100,340-gallon Emergency Fuel Oil Storage Tanks for Emergency Diesel Generators A and B (IA-2, Field-Erected, Installed in 1979)
Two 612-gallon Emergency Fuel Oil Day Tanks for the Emergency Diesel Generators A and B (IA-3, Installed in 1979)
10,000-gallon Reclaim Oil Tank (IA-9, Field-Erected, Installed in 1980)
300-gallon Diesel Tank (IA-10, Installed prior to 1997)
700-gallon Diesel Tank (IA-10, Installed prior to 1997)
Two 250 gallon Diesel Tanks.
250 gallon Gasoline Tank.
2000-gallon Unleaded Gasoline Storage Tank (IA-11, Installed in 1980)
300-gallon Kerosene Storage Tank (IA-12, Installed prior to 1997)
3000-gallon EOF Emergency Diesel Generator Fuel Oil Storage Tank (IA-13, Installed in 1981)
6000-gallon EOF Emergency Diesel Generator Fuel Oil Storage Tank (IA-14, Installed in 1981)
2844-gallon TSC Emergency Diesel Generator Fuel Oil Storage Tank (IA-15, Installed in 1981)
Unpaved Surveillance and Delivery Roads
Temporary Diesel Generators and Diesel Powered Equipment
Temporary Fuel Oil Storage Tanks

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

Air Pollution Control Program, Permit to Construct, Number 0684-003
Air Pollution Control Program, Permit to Construct, Number 0795-012
Air Pollution Control Program, Permit to Construct, Number 1195-010
Air Pollution Control Program, Permit to Construct, Number 0899-013

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.

Permit Condition PW001

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 or 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.

Monitoring:

None required.

Recordkeeping:

None required.

Reporting:

The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri, 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which causes an exceedance of this regulation.

Emission Unit Specific Emission Limitations

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

EU0010 Auxiliary Boiler		
Emission Unit	Description	2005 EIQ Reference #
EU0010	Auxiliary Boiler. Fuel oil no. 2, Design Rating 123 MMBtu/hr steam boiler used primarily for space heating during reactor down times. Combustion Engineering Type 18-A-13. Installed 1977.	B-01

<p>Permit Condition EU0010-001 10 CSR 10-3.060 Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating</p>

Emission Limitation:

The permittee shall not emit particulate matter in excess of the emission limit, in pounds per million BTU of heat input from emission unit EU0010, as defined below.

$$E = 1.31(Q)^{-0.338}$$

where

E = the maximum allowable particulate emission rate in pound per million Btu of heat input; and
 Q = the installation heat input in million of Btu per hour.

Operation Limitation/Equipment Specifications:

This emission unit shall be limited to burning fuel oil number 2.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain on the premises of the installation calculations demonstrating compliance with this rule (See Attachment B).
- 2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.

Reporting:

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

Permit Condition EU0010-002
10 CSR 10-6.060
Construction Permits Required
Air Pollution Control Program Construction Permit 0684-003

Emission Limitation:

Emissions of SO₂ from the auxiliary boiler (EU0010) shall not exceed 200 tons per calendar year.

Operational Limitation/Equipment Specification:

Sulfur content of fuel oil number 2 used in the auxiliary boiler (EU0010) shall not exceed 0.50% sulfur.

Monitoring/Recordkeeping:

- 1) The permittee shall record the monthly and calendar year totals of SO₂ emissions from this emission unit.
- 2) The permittee shall use Attachment C, Monthly SO₂ Emissions Tracking Record – Auxiliary Boiler (EU0010) or an equivalent form for this purpose.
- 3) The permittee shall maintain an accurate record of the sulfur content for fuel oil number 2. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 4) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 5) All records shall be maintained for five years.

Reporting:

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

Permit Condition EU0010-003
10 CSR 10-6.220
Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions with opacity greater than twenty percent.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any sixty minutes air contaminants with opacity up to sixty percent.

Monitoring:

- 1) As this equipment does not normally operate on lengthy cycles, the opacity shall be monitored once per operating period, but not more than once per week when operating. An operating period shall be defined as continuous operation totaling four or more hours. The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22 or U.S. EPA Test Method 9. Readings are only required 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 using Test Method 22, the source representative would then conduct a Method 9 observation.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachments D and E), 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 F).
- 3) The permittee shall maintain records of any U.S. EPA Method 9 opacity test performed (see Attachment G) in accordance with this permit condition.
- 4) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 5) All records shall be kept for a period of five years.

Reporting:

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

<p>Permit Condition EU0010-004 10 CSR 10-6.260¹ Restriction of Emission of Sulfur Compounds</p>

Emission Limitation:

- 1) No person shall cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of eight pounds of sulfur dioxide per million BTUs actual heat input averaged on any consecutive three hour time period.
- 2) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010, Ambient Air Quality Standards.

¹ 10 CSR 10-6.260(4) is state-only.

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

[10 CSR 10-6.260(4) & 10 CSR 10-6.010 Ambient Air Quality Standards]

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$))	Annual arithmetic mean
	0.14 ppm (365 $\mu\text{g}/\text{m}^3$)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 $\mu\text{g}/\text{m}^3$)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 $\mu\text{g}/\text{m}^3$)	1/2-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 $\mu\text{g}/\text{m}^3$)	1/2-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 $\mu\text{g}/\text{m}^3$	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 $\mu\text{g}/\text{m}^3$	1-hour average not to be exceeded more than once in any 2 consecutive days

Operational Limitation/Equipment Specifications:

This emission unit shall be limited to burning fuel oil number 2.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of the sulfur content for fuel oil number 2. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2) The permittee shall maintain compliance calculations using Attachment H, or an equivalent form, to demonstrate compliance with the above emission limitations.
- 3) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 4) All records shall be maintained for five years.

Reporting:

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

EU0020 through EU0080 Emergency Diesel Generator A Emergency Diesel Generator B Security Emergency Diesel Generator TSC Emergency Diesel Generator EOF Emergency Diesel Generator Fire Protection Emergency Diesel Pump A Fire Protection Emergency Diesel Pump B		
Emission Unit	Description	2005 EIQ Reference #
EU0020	Emergency Diesel Generator A. 8600-hp (58 MMBtu/hr) generator used for emergency electrical generation. Colt Industries PC 2.5. Installed 1979.	B-02
EU0030	Emergency Diesel Generator B. 8600-hp (58 MMBtu/hr) generator used for emergency electrical generation. Colt Industries PC 2.5. Installed 1979.	B-03
EU0040	Security Emergency Diesel Generator. 644-hp (1.7 MMBtu/hr) generator used for emergency electrical generation. General Allison Detroit Manufacturing V71. Installed 1981.	B-04
EU0050	TSC Emergency Generator. 355-hp (0.8 MMBtu/hr) generator used for emergency electrical generation. Cummins NT-835GS. Installed 1981	B-05
EU0060	EOF Emergency Generator. 565-hp (1.2 MMBtu/hr) generator used for emergency electrical generation. Cummins KTA-1150-GS-1. Installed 1981.	B-06
EU0070	Fire Protection Emergency Diesel Pump A. 255-hp (1.2 MMBtu/hr) pump used for fire-fighting purposes. Cummins NT-855-F1. Installed 1975.	B-07
EU0080	Fire Protection Emergency Diesel Pump B. 255-hp (1.2 MMBtu/hr) pump used for fire-fighting purposes. Cummins NT-855-F1. Installed 1975.	B-08

Permit Condition (EU0020 through EU0080)-001
10 CSR 10-6.060
Construction Permits Required
Air Pollution Control Program Construction Permit 0684-003

Emission Limitation/Operational Limitation/Equipment Specification:

Operating hours on each of the emergency diesel engines (EU0020 through EU0080) shall not exceed 400 hours per calendar year total, except in those instances where exempted in accordance with 10 CSR 10-6.050.

Operational Limitation/Equipment Specification:

Sulfur content of fuel oil number 2 used in the emergency diesel engines (EU0020 through EU0080) shall not exceed 0.50% sulfur.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of the sulfur content of fuel oil number 2. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2) The permittee shall record the monthly and calendar year totals of operating hours of each of the Emission Units EU0020 through EU0080.
- 3) The permittee shall use Attachment I, *Monthly Operating Hours Tracking Record – Emergency Electrical Generators (EU0020 through EU0080)* or an equivalent form for this purpose.
- 4) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 5) All records shall be maintained for five years.

Reporting:

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

Permit Condition (EU0020 through EU0080)-002

10 CSR 10-6.260²

Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1) Emissions from any new source operation shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide.
- 2) Stack gasses shall not contain more than thirty-five milligrams (35 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.
- 3) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010, Ambient Air Quality Standards.

² 10 CSR 10-6.260(4) is state-only.

[10 CSR 10-6.260(4) & 10 CSR 10-6.010 Ambient Air Quality Standards]

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$))	Annual arithmetic mean
	0.14 ppm (365 $\mu\text{g}/\text{m}^3$)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 $\mu\text{g}/\text{m}^3$)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 $\mu\text{g}/\text{m}^3$)	1/2-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 $\mu\text{g}/\text{m}^3$)	1/2-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 $\mu\text{g}/\text{m}^3$	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 $\mu\text{g}/\text{m}^3$	1-hour average not to be exceeded more than once in any 2 consecutive days

Operational Limitation/Equipment Specifications:

The emission unit shall be limited to burning number 2 fuel oil.

Monitoring/Recordkeeping:

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

Reporting:

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

Core 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 10-3.030 Open Burning Restrictions

- 1) The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.
- 2) Exception - Open burning of trade waste or vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open burning.
- 3) Any person intending to engage in open burning shall file a request to do so with the director. The request shall include the following:
 - a) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices, the type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known;
 - b) The schedule of burning operations;
 - c) The exact location where open burning will be used to dispose of the trade wastes;
 - d) Reasons why no method other than open burning is feasible; and
 - e) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.
- 4) Upon approval of the open burning permit application by the director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt Union Electric Co. - Callaway Plant from the provisions of any other law, ordinance or regulation.
- 5) The permittee shall maintain files with letters from the director approving the open burning operation and previous DNR inspection reports.

10 CSR 10-3.090 Restriction of Emission of Odors

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 fifteen minutes apart within the period of one hour.

This requirement is not federally enforceable.

10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions
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- 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 fifteen- days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.
- 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

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

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months.

[10 CSR 10-6.065(6)(B)1.A(V)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources' personnel upon request.

[10 CSR 10-6.065(6)(C)3.B]

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

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

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

- 1) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.
- 2) 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 to satisfy the requirements of the Federal Clean Air Act, Title V.
- 3) The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the director.

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

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

10 CSR 10-6.150 Circumvention

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

10 CSR 10-6.170 Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

- 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 non-compliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
 - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
 - b) Paving or frequent cleaning of roads, driveways and parking lots;
 - c) Application of dust-free surfaces;
 - d) Application of water; and
 - e) Planting and maintenance of vegetative ground cover.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

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

10 CSR 10-6.250 Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources' Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources' Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from

the department. Certain business entities that meet the requirements for state-approved exemption status must allow the department to monitor training classes provided to employees who perform asbestos abatement.

10 CSR 10-6.280 Compliance Monitoring Usage

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Any other monitoring methods approved by the director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a) Applicable monitoring or testing methods, cited in:
 - i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - ii) 10 CSR 10-6.040, "Reference Methods";
 - iii) 10 CSR 10-6.070, "New Source Performance Standards";
 - iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
 - b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

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

- a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping 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 fifty 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.

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

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 Recordkeeping and Reporting Requirements

- 1) Recordkeeping
 - 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's Enforcement Section, P. O. Box 176, Jefferson City, Missouri, 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 thirty 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, recordkeeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
 - d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.

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

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

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

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

10 CSR 10-6.065(6)(C)1.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 non-compliance 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)1.J Emissions Trading

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 semi-annually (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, 901 North 5th Street, Kansas City, Kansas, 66101, as well as the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri, 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 application 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 non-compliance 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 non-compliance 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri, 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas, 66101, 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), recordkeeping, 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri, 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas, 66101, 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 Air Pollution Control Program shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the Air Pollution Control Program 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 Air Pollution Control Program 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 written notice of the change to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri, 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas, 66101, no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3. 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)12 Responsible Official

The application utilized in the preparation of this permit was signed by Mr. David W. Neterer, Manager of Nuclear Operations. In addition, at the request of the permittee, the following persons have authority to act as responsible officials: Mr. Adam C. Heflin, Senior Vice President and Chief Nuclear Officer; and Mr. Fadi Diya, Vice President of Nuclear Operations. If any of these people terminate employment, or are 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 thirty 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 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) Missouri Department of Natural Resources 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) Missouri Department of Natural Resources 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.

Attachments

Attachments follow.

Attachment B

This attachment may be used to help meet the recordkeeping requirements of Permit Condition EU0010-001.

Emission Limitation Calculation

Unit Description	Heat Input (Q)
Auxiliary Boiler	123 MMBtu/hr
Total Installation Heat Input (Q)	123 MMBtu/hr
PM Allowable Emission Limitation for "New" Units $E = 1.31(Q)^{-0.338}$	0.26 lb PM/MMBtu

Compliance Calculation

Unit	Fuel	Maximum Hourly Design Rate ¹	Emission Factor ²	Boiler Heat Capacity (MMBtu/hr)	Potential Emission Rate ³ (lbs/MMBtu)	Emission Limitation (lbs/MMBtu)
EU0010	Fuel Oil No. 2	0.8978	2.00	123	0.01	0.26

¹Fuel Oil: 140 MMBtu/10³ gallons
 Units: 10³ gallons/hr

²Fuel Oil: Emission Factor Source = AP42 Sec. 1.3 (9/98)
 Units: lb PM/10³ gallons

³Potential PM Emission Rate = Max. Hourly Design Rate (units/hr) * Emission Factor (lb/units) * (1/Boiler Heat Capacity [MMBtu/hr])

Attachment D

This attachment may be used to help meet the recordkeeping requirements of Permit Condition EU0010-003.

Method 22 (Outdoor) Observation Log		
Emission Unit		
Observer	Date	
Sky Conditions		
Precipitation		
Wind Direction	Wind Speed	
<p>Sketch process unit: Indicate the position relative to the source and sun; mark the potential emission points and/or the observing emission points.</p> 		
Observation Clock Time	Observation Period Duration (minute:second)	Accumulative Emission Time (minute:second)
Begin Observation		
End Observation		

Attachment F

This attachment may be used to help meet the recordkeeping requirements of Permit Condition EU0010-003.

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 H

This attachment is used to verify compliance with the limitations of Permit Conditions: EU0010-004 and (EU0020 through EU0080)-002.

Emission Unit	Emission Unit Description		SO ₂ Emission Factor (lb/MMBtu) ¹	SO ₂ Emissions (lb/MMBtu)	SO ₂ Limit (lb/MMBtu)
EU0010	Auxiliary Boiler	Fuel Oil #2	0.52 AP42 Tbl 1.3-1 (09/98)	0.52	8.0

¹SO₂ emission factor converted 71 lb/10³ gal to lb/MMBtu by dividing by 137 mmBTU/10³ gal for Fuel Oil No. 2..

Emission Unit	Emission Unit Description		SO ₂ Emission Factor (lb/MMBtu) ¹	SO ₂ Emissions (ppmv) ²	SO ₂ Limit (ppmv)
EU0020	Emergency Diesel Generator A	Fuel Oil #2	0.505 AP42 Tbl 3.4-1 (10/96)	295	500
EU0030	Emergency Diesel Generator B				
EU0040	Security Emergency Diesel Generator				
EU0050	TSC Emergency Diesel Generator	Fuel Oil #2	0.29 AP42 Tbl 3.3-1 (10/96)	169	500
EU0060	EOF Emergency Diesel Generator				
EU0070	Fire Protection Emergency Diesel Pump A				
EU0080	Fire Protection Emergency Diesel Pump B				

¹S = the sulfur content of the fuel

²General Equation: ppmv SO₂ = SO₂ Emission Factor ÷ F factor ÷ Conversion Factor

1. The SO₂ emission factor is the emission factor presented in the following table. It assumes that all of the sulfur in the fuel is converted to SO₂ emissions.
2. The F factor is the ratio of gas volume of products of combustion to the heat content of the fuel. For fuel oil the F factor is 10,320 wscf/MMBtu.. (40 CFR Part 60 Appendix A Method 19 Tbl 19-1).
3. The conversion factor is 1.660E-7lb/scf per ppmv (40 CFR Part 60 Appendix A Method 19).

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

Attachment I

Monthly Operating Hours Tracking Record – Emergency Diesel Engines (EU0020 through EU0080)

This attachment may be used to help meet the recordkeeping requirements of Permit Condition (EU0020 through EU0080)-001

Month/ Year	EU0020		EU0030		EU0040		EU0050		EU0060		EU0070		EU0080	
	Current Month	Calendar Year												

EU0020: Emergency Diesel Generator A
 EU0030: Emergency Diesel Generator B
 EU0040: Security Emergency Diesel Generator
 EU0050: TSC Emergency Diesel Generator

EU0060: EOF Emergency Diesel Generator
 EU0070: Fire Protection Emergency Diesel Pump A
 EU0080: Fire Protection Emergency Diesel Pump B

STATEMENT OF BASIS

Permit Reference Documents

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

- 1) Part 70 Operating Permit Application, received January 2, 2003;
- 2) 2005 Emissions Inventory Questionnaire, received May 31, 2006;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition; and
- 4) Correspondence from the installation dated August 3, 2004.

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

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

10 CSR 10-6.080, *Emission Standards for Hazardous Air Pollutants*

Since 40 CFR Part 61 Subpart M has been deemed to apply to all installations as a core permit requirement, this rule also applies as a core permit requirement as it references 40 CFR Part 61 subparts.

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

This rule has been included in the operating permit in order to provide citing for the allowance of requests for emissions data results. On past forms issued by the Air Pollution Control Program, including the application for this permit, it was automatically marked as an administrative rule not required to be listed as an applicable requirement. It is no longer judged to be solely administrative and is, therefore, included in the operating permit as a core permit requirement.

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

- a) 10 CSR 10-3.080, *Restriction of Emission of Visible Air Contaminants*, has been rescinded and removed from the SIP. It has been replaced by 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*, which is an applicable requirement in the operating permit.
- b) This rule is applicable to the auxiliary boiler (EU0010). Since the boiler was installed after February 24, 1971, the requirements for new sources are applicable.
- c) 10 CSR 10-6.220(1)(A) specifically exempts internal combustion engines (EU0020 through EU0080 and Emission Units Without Limitations IA-4, IA-5, IA-7, IA-8, B-9 and B-10) from the requirements of this rule.
- d) The storage tanks and parts washers at the installation listed in Emission Units Without Limitations are not expected to generate emissions that would result in opacity issues. As such, the rule was not included in the operating permit for those emission units.

10 CSR 10-6.250, *Asbestos Abatement Projects – Certification, Accreditation and Business Exemption Requirements*

This rule has been deemed to be applicable to all installations and is, as such, included in the operating permit as a core permit requirement.

10 CSR 10-6.280, *Compliance Monitoring Usage*

On past forms issued by the Air Pollution Control Program, including the application for this permit, this rule was automatically marked as an administrative rule not required to be listed as an applicable requirement. It is no longer judged to be solely administrative and is, therefore, included in the operating permit as a core permit requirement.

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

This rule has been deemed to be applicable to all installations and is, as such, included in the operating permit as a core permit requirement.

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.

Air Pollution Control Program, Temporary Permit to Construct, Permit Number 0795-012 and August 15 Extension Letter

The equipment covered by this permit was only a temporary addition to the installation. It was required to be removed from service within sixty days from an initial startup date of October 31, 1995. Since the equipment is no longer in service, the permit conditions are no longer applicable and are not included in the operating permit.

Air Pollution Control Program, Permit to Construct, Permit Number 1195-010

This permit contains no specific special conditions. The “Project Description” indicates the generator will not operate more than 2000 hours per year but since this condition is not specifically spelled out as a Special Condition, the permit was not included in the operating permit as an applicable requirement.

Air Pollution Control Program, Temporary Permit to Construct, Permit Number 027-0026 and Corrected Version

The eight diesel powered air compressors permitted under this permit were required to be removed from service by October 31, 1999. Since the equipment is no longer in service, the permit conditions are no longer applicable and are not included in the operating permit.

10 CSR 10-6.100, *Alternate Emission Limits*

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

Construction Permit Revisions

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

Air Pollution Control Program, Permit to Construct, Permit Number 0684-003

1. Special Conditions 1 and 2 of this permit indicate that the sulfur content of the fuel shall not exceed 0.5% on a monthly average. According to the 2003 EIQ, the sulfur content of the fuel oil burned at the installation is well below 0.5%. As such, the construction permit conditions have been changed to reflect a maximum allowed sulfur content of 0.5% instead of one calculated based on averaging. This approach allows the operating permit to reflect standard agency language and reduces the amount of calculations required to demonstrate compliance with the permit.
2. Special Condition 1 indicates diesel fuel is burned in the emergency diesel engines. Since the 2005 EIQ indicates fuel oil number 2 is burned in the generators and the two terms are often used interchangeably, the operating permit refers only to fuel oil number 2.
3. Special Condition 3 refers to SO₂ emissions. This reference was changed to SO₂ emissions based on the emission factor used in the review of the permit. The emission factor used was for total SO₂ emissions not just SO₂ emissions.
4. Special Conditions 3 and 4 require the installation to track boiler emissions and generator run hours, respectively, but refer to no example recordkeeping logs. Sample logs were included in the operating permit for these requirements.
5. Special Condition 5 was not included in the operating permit. Per an agreement between the installation and the Air Pollution Control Program, the quarterly operation report as defined in Condition 5 of construction permit 0684-003, is no longer required. The data required by the construction permit will continue to be collected by the installation. This data will be used for the semi-annual deviation reporting and annual compliance certification for the installation. The semi-annual reporting replaces the quarterly operation report.
6. This permit discusses two emergency generators: one located in the microwave tower (IA-7) and one located in the meteorological tower (IA-8). These generators burn propane and are expected to run on an emergency basis only. The construction permit review indicates emissions from these units are negligible and does not include emission calculations in the permit for them. In addition, the construction permit's conditions as a whole are geared towards fuel oil combustion. Propane is considered a clean-burning fuel which based on engineering judgment would never violate the sulfur content condition of the permit. Therefore, the interpretation of the construction permit is that these two generators are not subject to the Special Conditions of the permit.

New Source Performance Standards (NSPS) Applicability

Currently, there are no 40 CFR Part 60 subparts that apply to any of the emission units at this installation.

40 CFR 60 Subparts D, *Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971*, and Da, *Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978*

These rules do not apply to the boiler (EU0010) since it has a heat input of less than 250 MMBtu/hr.

40 CFR 60 Subpart Db, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*

This rule does not apply to the boiler (EU0010) since according to the purchase order date, it was installed prior to June 19, 1984.

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

This rule does not apply to the boiler (EU0010) since it has a heat input of greater than 100 MMBtu/hr.

40 CFR 60 Subparts 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*, and 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*

These rules do not apply to any of the tanks at the installation. Only three tanks have storage capacities greater than 40,000 gallons. Those three tanks store fuel oil #2 which is specifically exempted in the definitions of petroleum liquid per §60.111(b) and §60.111a(b).

40 CFR 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*

This rule does not apply to any of the tanks at the installation. Only three tanks have storage capacities greater than 75 m³. Each of those three tanks was installed prior to July 23, 1984.

Maximum Available Control Technology (MACT) Applicability

Currently, there are no 40 CFR Part 63 subparts that apply to any of the emission units covered by this permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

40 CFR Part 61, Subpart M, *National Emission Standard for Asbestos*,

This rule applies to the installation because of the renovation and demolition parts of the subpart which makes the subpart applicable to all sources. It is included as a core permit requirement.

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.

Other Regulatory Determinations

The following emission units were included in this operating permit as Emission Units Without Limitations. The reasons they were not included as significant emission units as explained below.

Emission Unit Description	Explanation
Ten Fuel Oil and Gasoline Portable Pumps for Various Feed Water, Oil, Lubricating and Maintenance Systems (IA-4)	These emission units match at least one of the following descriptions. They can be moved by hand and/or they emit only products of combustion, produce less than 150 pounds per day of any air contaminant and have heat inputs of less than 1 MMBtu/hr. The APCP has determined that it is not necessary to include units such as this in the operating permit.
Ten Portable Gasoline Generators used for Equipment Power at Various Locations for Maintenance or Start-up Activities (IA-5)	
Portable Diesel Generator A (B-9)	
Portable Diesel Generator B (B-10)	
Emergency Propane Generator for Microwave Tower (IA-7, 111.5 hp, Onan 55.0 EN, Purchase Order Date 07/21/1983)	These emission units emit only products of combustion, produce less than 150 pounds per day of any air contaminant and have heat inputs of less than 10 MMBtu/hr by using exclusively liquefied petroleum gas. The APCP has determined that it is not necessary to include units such as this in the operating permit.
Emergency Propane Generator for Meteorological Tower (IA-8, 7.5 kW, Onan JB-3DR/8389T, Purchase Order Date 05/04/1972)	
Two Parts Washers (IA-6, Installed prior to 1997)	Since VOCs are the only expected regulated pollutant to be emitted from these emission units and there are no regulations governing the emission of VOCs from the units, no regulations were included in the operating permit for these emission units.
300,000-gallon Auxiliary Boiler Fuel Tank (IA-1, Field-Erected, Installed in 1977)	VOC emissions are the only expected emissions of a regulated pollutant from these tanks. As described elsewhere in the Statement of Basis, none of the tanks are subject to NSPS standards and there are no other regulations governing the emission of VOCs from tanks. Therefore, no regulations were included in the operating permit for these emission units.
Two 100,340-gallon Emergency Fuel Oil Storage Tanks for Emergency Diesel Generators A and B (IA-2, Field-Erected, Installed in 1979)	
Two 612-gallon Emergency Fuel Oil Day Tanks for the Emergency Diesel Generators A and B (IA-3, Installed in 1979)	
10,000-gallon Reclaim Oil Tank (IA-9, Field-Erected, Installed in 1980)	
300-gallon Diesel Tank (IA-10, Installed prior to 1997)	
700-gallon Diesel Tank (IA-10, Installed prior to 1997)	
2000-gallon Unleaded Gasoline Storage Tank (IA-11, Installed in 1980)	

Emission Unit Description	Explanation
300-gallon Kerosene Storage Tank (IA-12, Installed prior to 1997)	
3000-gallon EOF Emergency Diesel Generator Fuel Oil Storage Tank (Installed in 1981)	
6000-gallon EOF Emergency Diesel Generator Fuel Oil Storage Tank (Installed in 1981)	
Two 250 gallon Diesel Tanks.	
250 gallon Gasoline Tank.	
2844-gallon TSC Emergency Diesel Generator Fuel Oil Storage Tank (Installed in 1981)	
Unpaved Surveillance and Delivery Roads	Emissions from the roads are fugitive PM. As such, the only applicable regulation is 10 CSR 10-6.170 which is already included in the operating permit as a plant wide condition.
Temporary Diesel Generators and Diesel Powered Equipment	Temporary diesel generators and diesel powered equipment such as air compressors may be brought on site during plant outages. They will be used for maintenance activities and emit negligible emissions.
Temporary Fuel Oil Storage Tanks	Temporary fuel oil storage tanks may be brought on site and used during plant outages. These tanks range in size from 300 gallons to 6,000 gallons and emit negligible amounts of VOC's from their vents.

10 CSR 10-3.060, *Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating*

This rule applies to the auxiliary boiler (EU0010). Since the boiler was installed after February 24, 1971, the requirements for new sources are applicable. The only indirect heating source at the installation is the boiler. As such, the installation's heat input is that of the boiler. As indicated in Attachment B, the boiler is in compliance with this rule.

10 CSR 10-6.170, *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*

This rule limits particulate emissions from storage and transport of materials. The facility does not routinely store materials in piles or transfer materials. Therefore, the plant wide condition PW001 does not include any monitoring or recordkeeping requirements.

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

Subsection (3)(A) of this rule applies to the generators listed in the operating permit (EU0020 through EU0080) and also the portable pumps (IA-4) and generators (IA-5, B-9 and B-10) listed in the Emission Units Without Limitations. However, the rule was not included in the operating permit for the portable pumps and generators since those units are considered insignificant activities by the operating permit application.

The two propane generators listed in the Emission Units Without Limitations (IA-7 and IA-8) are specifically exempted from the rule since they burn propane (Subsection (A)(2)).

Subsection (3)(B) was included in the operating permit for all units to which the rule was deemed to apply.

Subsection (3)(C) was included in the operating permit for the auxiliary boiler (EU0010) since it is an indirect heating source.

All units for which the rule is included in the operating permit were installed after February 24, 1971; therefore, the requirements for new sources are specified.

Compliance calculations for the rule are included in Attachment H.

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

Prepared by:



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