



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 herein.

Operating Permit Number: OP2012-054
Expiration Date: JAN 07 2018
Installation ID: 037-0003
Project Number: 2011-11-024

Installation Name and Address

KCP&L Greater Missouri Operations Company - Ralph Green Generating Station
101 Front Street
Pleasant Hill, MO 64034
Cass County

Parent Company's Name and Address

Great Plains Energy, Inc.
P.O. Box 418679
Kansas City, MO 64141-9679

Installation Description:

The Ralph Green Generating Station is an unstaffed remotely controlled electric power generation peaking plant located in Pleasant Hill, Missouri. The primary source of air emissions from this installation is a turbine which combusts natural gas. Other smaller sources of air emissions at the installation are a turbine lube oil reservoir, a solvent parts washer, fuel powered maintenance equipment and space heaters. The installation is a major source of nitrogen oxides (NO_x). The installation is subject to 40 CFR Part 60 Subpart GG, *Standards of Performance for Stationary Gas Turbines*.

JAN 08 2013

Effective Date

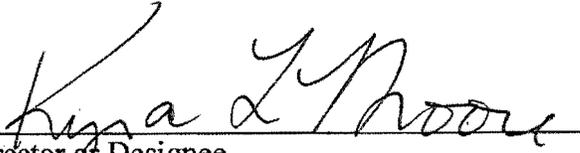

Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

The Ralph Green Generating Station is an unstaffed remotely controlled electric power generation peaking plant located in Pleasant Hill, Missouri. The primary source of air emissions from this installation is a turbine which combusts natural gas. Other smaller sources of air emissions at the installation are a turbine lube oil reservoir, a solvent parts washer, fuel powered maintenance equipment and space heaters. The installation is a major source of NO_x.

Reported Air Pollutant Emissions, tons per year					
Pollutants	2010	2009	2008	2007	2006
Particulate Matter ≤ Ten Microns (PM ₁₀)	0.042	0.018	0.033	0.19	0.25
Particulate Matter ≤ 2.5 Microns (PM _{2.5})	0.042	0.018	0.033	0.48	0.62
Sulfur Oxides (SO _x)	0.0038	0.0016	0.011	0.062	0.08
Nitrogen Oxides (NO _x)	1.80	0.80	4.89	13.48	17.37
Volatile Organic Compounds(VOC)	0.013	0.0057	0.037	0.22	0.28
Carbon Monoxide (CO)	0.19	0.082	0.53	3.12	4.02
Lead (Pb)	0.00	0.00	0.00	0.00	0.00
Hazardous Air Pollutants (HAPs)	0.00	0.00	0.00	0.00	0.00
Ammonia (NH ₃)	0.00	0.00	0.00	0.00	0.00

EMISSION UNITS WITH LIMITATIONS

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

<u>Emission Unit #</u>	<u>Description of Emission Unit</u>
EP1	74 MW Simple-Cycle Combustion Turbine Generator

EMISSION UNITS WITHOUT LIMITATIONS

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

Description of Emission Source

Turbine Lube Oil Reservoir, capacity: 2,400 gallons

Solvent Parts Washer, capacity six gallons

Fuel Powered Maintenance Equipment

Two Space Heaters, 0.01 MMBtu/hr each, natural gas fired

II. Plant Wide Emission Limitations

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

None

III. Emission Unit Specific Emission Limitations

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

Combustion Turbine		
Emission Unit	Description	Manufacturer/Model #
EP1	74 MW combustion turbine firing natural gas operating in simple cycle mode with water injection for NO _x control, 1187 MMBtu/hr	General Electric, Model No. M7001

PERMIT CONDITION EP1-001

10 CSR 10-6.060 Construction Permits Required
Construction Permit #1280-006, Issued October 28, 1980

Operational Limitation

The permittee shall burn no more than 1.224×10^9 cubic feet of natural gas in this combustion turbine in any consecutive 12 month period. [Special Condition 1]

Monitoring/Recordkeeping

1. The permittee shall record the monthly and running 12-month totals of cubic feet of pipeline natural gas burned by this combustion turbine.
2. These records shall be made available for inspection to the Department of Natural Resources' personnel upon request.
3. All records shall be maintained for five years.

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 days after any exceedance of any of the terms imposed by this regulation, or any malfunction which causes an exceedance of this regulation.
2. The permittee shall report any deviations from the standards, monitoring/testing, 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 EP1-002

10 CSR 10-6.060 Construction Permits Required
Letter Granting Permit to Construct Dated January 29, 1981

Operational Limitation

The permittee shall not operate this combustion turbine to generate more than 117 million kilowatt-hours in any consecutive 12-month period.

Monitoring/Recordkeeping

1. The permittee shall maintain an accurate record of the electric power (kilowatt-hours) generated and fuel consumed by this combustion turbine.
2. The permittee shall record the monthly and running 12-month totals of electric power (kilowatt-hours) generated and fuel consumed by this combustion turbine.
3. These records shall be made available for inspection to the Department of Natural Resources' personnel upon request.
4. All records shall be maintained for five years.

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 days after any exceedance of any of the terms imposed by this regulation, or any malfunction which causes an exceedance of this regulation.
2. The permittee shall report any deviations from the standards, monitoring/testing, 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 EP1-003

10 CSR 10-6.070, New Source Performance Regulations
40 CFR Part 60 Subpart GG, Standards of Performance for Stationary Gas Turbines

Emission Limitation

1. No owner or operator subject to the provisions of Subpart GG shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of 91.75 ppmv at 15 percent oxygen on a dry basis. [§60.332(a)(1)]
2. Stationary gas turbines using water or steam injection for control of NO_x emissions are exempt from paragraph 40 CFR §60.332(a) when ice fog is deemed a traffic hazard by the owner or operator of the gas turbine. [§60.332(f)]
3. The permittee shall comply with one of the following conditions: [§60.333]
No owner or operator subject to the provisions of 40 CFR Part 60, Subpart GG shall:
 - a) 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. [§60.333(a)]
 - b) burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight. [§60.333(b)]

Monitoring

1. The permittee shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water or steam to fuel being fired in the turbine. [§60.334(a)]
2. The owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in §60.331(u), regardless of whether an existing custom schedule approved by the Director for Subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration: [§60.334(h)(3)]

- a) 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 [§60.334(h)(3)(i)]
- b) 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 this chapter is required. [§60.334(h)(3)(ii)]

Recordkeeping

1. Records shall be made available for inspection to the Department of Natural Resources' personnel upon request.
2. All records shall be maintained for five years.

Reporting

1. For each affected unit that elects to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows: [§60.334(j)]
 - a) An excess emission shall be any unit operating hour for which the average steam or water to fuel ratio, as measured by the continuous monitoring system, falls below the acceptable steam or water to fuel ratio needed to demonstrate compliance with §60.332, as established during the performance test required in §60.8. Any unit operating hour in which no water or steam is injected into the turbine shall also be considered an excess emission. [§60.334(j)(1)(i)(A)]
 - b) A period of monitor downtime shall be any unit operating hour in which water or steam is injected into the turbine, but the essential parametric data needed to determine the steam or water to fuel ratio are unavailable or invalid. [§60.334(j)(1)(i)(B)]
 - c) Each report shall include the average steam or 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 §60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of §60.335(b)(1). [§60.334(j)(1)(i)(C)]
2. *Ice fog.* Each period during which an exemption provided in §60.332(f) is in effect shall be reported in writing to the Director 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 30th day following the end of each calendar quarter. [§60.334(j)(3)]
3. *Emergency fuel.* Each period during which an exemption provided in §60.332(k) is in effect shall be included in the report required in §60.7(c). For each period, the type, reasons, and duration of the firing of the emergency fuel shall be reported. [§60.334(j)(4)]
4. All reports required under §60.7(c) shall be postmarked by the 30th day following the end of each 6-month period. [§60.334(j)(5)]
5. 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 days after any exceedance of any of the terms imposed by this regulation, or any malfunction which causes an exceedance of this regulation.

6. The permittee shall report any deviations from the standards, monitoring/testing, 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 EP1-004

10 CSR 10-6.362, Clean Air Interstate Rule Annual NO_x Trading Program
10 CSR 10-6.364, Clean Air Interstate Rule Seasonal NO_x Trading Program
10 CSR 10-6.366, Clean Air Interstate Rule SO₂ Trading Program

Emission Limitation

The permittee shall obtain a CAIR Permit for the combustion unit (EP1) pursuant to Title IV of the Clean Air Act.

Monitoring/Recordkeeping

1. The permittee shall retain the CAIR permit issued to this installation onsite or at the Greenwood Energy Center.
2. The permittee shall make the CAIR permit available to any Missouri 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 EP1-005

40 CFR Part 60 Subpart GG, Standards of Performance for Stationary Gas Turbines
40 CFR Part 64, Compliance Assurance Monitoring

Emission Limitation

The facility must demonstrate that the Nitrogen Oxide emissions are maintained below 91.75 ppmv NO_x at 15 percent O₂ dry basis.

Monitoring Basis

The Department of Natural Resources' Air Pollution Control Program's Compliance/Enforcement Section has approved a Compliance Assurance Monitoring (CAM) Plan provided by the facility. The CAM approach is as follows:

The injection of water into the combustor lowers the flame temperature and thereby reduces thermal NO_x formation. To meet the emission limitation the water injection rate was determined through testing. The tests varied fuel throughput (load) at different ambient temperatures to produce a series of water versus fuel throughput curves (W/F Curves).

The CAM approach is tabularized in Attachment C. The W/F Curve data are presented in Attachment D.

Monitoring

1. Proper maintenance. At all times, the permittee shall maintain the monitoring equipment, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. [§64.7(b)]
2. Continued operation. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions units are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [§64.7(c)]
3. Response to excursions or exceedances: [§64.7(d)]
 - a) Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. [§64.7(d)(1)]
 - b) Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process. [§64.7(d)(2)]
4. Documentation of need for improved monitoring. After approval of monitoring under this part, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the Part 70 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [§64.7(e)]

Quality improvement plan (QIP)

1. The permittee shall develop and implement a QIP if EP1 has accumulated excursions exceeding five percent duration of the operating time during the reporting period.
2. Elements of a QIP: [§64.8(b)]

- a) The permittee shall maintain a written QIP, if required, and have it available for inspection. [§64.8(b)(1)]
- b) The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate: [§64.8(b)(2)]
 - i) Improved preventive maintenance practices. [§64.8(b)(2)(i)]
 - ii) Process operation changes. [§64.8(b)(2)(ii)]
 - iii) Appropriate improvements to control methods. [§64.8(b)(2)(iii)]
 - iv) Other steps appropriate to correct control performance. [§64.8(b)(2)(iv)]
 - v) More frequent or improved monitoring (only in conjunction with one or more steps under §64.8(b)(2)(i) through (iv)). [§64.8(b)(2)(v)]
3. If a QIP is required, the permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined. [§64.8(c)]
4. Following implementation of a QIP, upon any subsequent determination pursuant to §64.7(d)(2) the Director may require that the permittee make reasonable changes to the QIP if the QIP is found to have: [§64.8(d)]
 - a) Failed to address the cause of the control device performance problems; or [§64.8(d)(1)]
 - b) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. [§64.8(d)(2)]
5. Implementation of a QIP shall not excuse the permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. [§64.8(e)]

Recordkeeping

1. The permittee shall comply with the recordkeeping requirements specified in §70.6(a)(3)(ii). The permittee shall retain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be retained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). [§64.9(b)(1)]
2. Instead of paper records, the permittee may retain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [§64.9(b)(2)]

Reporting

1. The permittee shall submit monitoring reports to the permitting authority in accordance with §70.6(a)(3)(iii). [§64.9(a)(1)]
2. A report for monitoring under this part shall include, at a minimum, the information required under §70.6(a)(3)(iii) and the following information, as applicable: [§64.9(a)(2)]
 - a) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken; [§64.9(a)(2)(i)]

- b) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and [§64.9(a)(2)(ii)]
- c) A description of the actions taken to implement a QIP, if a QIP is required, during the reporting period as specified in §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. [§64.9(a)(2)(iii)]

IV. Core Permit Requirements

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

10 CSR 10-6.045 Open Burning Requirements

- 1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
- 2) Refer to the regulation for a complete list of allowances. The following is a listing of exceptions to the allowances:
 - a) Burning of household or domestic refuse. Burning of household or domestic refuse is limited to open burning on a residential premises having not more than four dwelling units, provided that the refuse originates on the same premises, with the following exceptions:
 - i) Kansas City metropolitan area. The open burning of household refuse must take place in an area zoned for agricultural purposes and outside that portion of the metropolitan area surrounded by the corporate limits of Kansas City and every contiguous municipality;
 - ii) Springfield-Greene County area. The open burning of household refuse must take place outside the corporate limits of Springfield and only within areas zoned A-1, Agricultural District;
 - iii) St. Joseph area. The open burning of household refuse must take place within an area zoned for agricultural purposes and outside that portion of the metropolitan area surrounded by the corporate limits of St. Joseph; and
 - iv) St. Louis metropolitan area. The open burning of household refuse is prohibited;
 - b) Yard waste, with the following exceptions:
 - i) Kansas City metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation shall require an open burning permit;
 - ii) Springfield-Greene County area. The City of Springfield requires an open burning permit for the open burning of trees, brush or any other type of vegetation. The City of Springfield prohibits the open burning of tree leaves;
 - iii) St. Joseph area. Within the corporate limits of St. Joseph, the open burning of trees, tree leaves, brush or any other type of vegetation grown on a residential property is allowed during the following calendar periods and time-of-day restrictions:
 - a. A three (3)-week period within the period commencing the first day of March through April 30 and continuing for twenty-one (21) consecutive calendar days;
 - b. A three (3)-week period within the period commencing the first day of October through November 30 and continuing for twenty-one (21) consecutive calendar days;
 - c. The burning shall take place only between the daytime hours of 10:00 a.m. and 3:30 p.m.; and
 - d. In each instance, the twenty-one (21)-day burning period shall be determined by the director of Public Health and Welfare of the City of St. Joseph for the region in which the City of St. Joseph is located provided, however, the burning period first shall receive the approval of the department director; and

1. St. Louis metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation is limited to the period beginning September 16 and ending April 14 of each calendar year and limited to a total base area not to exceed sixteen (16) square feet. Any open burning shall be conducted only between the hours of 10:00 a.m. and 4:00 p.m. and is limited to areas outside of incorporated municipalities;
- 3) 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.
- 4) KCP&L Greater Missouri Operations Company - Ralph Green Generating Station may be issued an annually renewable open burning permit for open burning provided that an air curtain destructor or incinerator is utilized and only tree trunks, tree limbs, vegetation or untreated wood waste are burned. Open burning shall occur at least two hundred (200) yards from the nearest occupied structure unless the owner or operator of the occupied structure provides a written waiver of this requirement. Any waiver shall accompany the open burning permit application. The permit may be revoked if KCP&L Greater Missouri Operations Company - Ralph Green Generating Station fails to comply with the provisions or any condition of the open burning permit.
 - a) In a nonattainment area, as defined in 10 CSR 10-6.020, paragraph (2)(N)5., the director shall not issue a permit under this section unless the owner or operator can demonstrate to the satisfaction of the director that the emissions from the open burning of the specified material would be less than the emissions from any other waste management or disposal method.
- 5) Reporting and Recordkeeping. New Source Performance Standard (NSPS) 40 CFR Part 60 Subpart CCCC establishes certain requirements for air curtain destructors or incinerators that burn wood trade waste. These requirements are established in 40 CFR 60.2245-60.2260. The provisions of 40 CFR Part 60 Subpart CCCC promulgated as of September 22, 2005, shall apply and are hereby incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401. To comply with NSPS 40 CFR 60.2245-60.2260, sources must conduct an annual Method 9 test. A copy of the annual Method 9 test results shall be submitted to the director.
- 6) Test Methods. The visible emissions from air pollution sources shall be evaluated as specified by 40 CFR Part 60, Appendix A–Test Methods, Method 9–Visual Determination of the Opacity of Emissions from Stationary Sources. The provisions of 40 CFR Part 60, Appendix A, Method 9 promulgated as of December 23, 1971, is incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401.

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

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;

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

10 CSR 10-6.060 Construction Permits Required

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

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. [10 CSR 10-6.065(6)(B)1.A(V)] The permittee shall retain the most current operating permit issued to this installation on-site or at the Greenwood Energy Center. [10 CSR 10-6.065(6)(C)1.C(II)] The permittee shall 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 10-6.100 Alternate Emission Limits

Proposals for alternate emission limitations shall be submitted on Alternate Emission Limits Permit forms provided by the department. An installation owner or operator must obtain an Alternate Emission Limits Permit in accordance with 10 CSR 10-6.100 before alternate emission limits may become effective.

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

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

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

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

10 CSR 10-6.150 Circumvention

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

10 CSR 10-6.170

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

Emission Limitation:

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

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 the visible emissions were normal for the installation.
- 3) Whether equipment malfunctions contributed to an exceedance.
- 4) 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 10-6.165 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 10-6.250 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.

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

10 CSR 10-6.280 Compliance Monitoring Usage

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

V. General Permit Requirements

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

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

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

10 CSR 10-6.065(6)(C)1.C General 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 or at the Greenwood Energy Center for as long as the permits are in effect. Copies of these permits shall be made 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, 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, 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 semi-annual 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.

The installation must obtain a CAIR permit. A CAIR permit is being issued with this Part 70 operating permit.

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 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, 11201 Renner Boulevard, Lenexa, KS 66219, as well as the Air Pollution Control Program's 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's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Boulevard, 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), 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, MO 65102, as well as EPA Region VII, 11201 Renner Boulevard, 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 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, MO 65102, as well as EPA Region VII, 11201 Renner Boulevard, Lenexa, KS 66219, 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 Kevin Noblet, Sr. Director Renewables & Gas Generation. 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) The 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
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This permit is accompanied by a statement setting forth the legal and factual basis for the permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

VI. Attachments

Attachments follow.

Attachment C

Ralph Green Generating Station (037-0003)		
	NO _x Limit	
	Indicator #1	Indicator #2
Indicator	Water-to-Fuel (W/F) Ratio	Nitrogen Content of Fuel
Measurement Approach	Water Flow Monitor Fuel Flow Monitor	Fuel Supplier Certification
Indicator Range	% Load	W/F Ratio
	50	See Tables
	51 – 75	See Tables
	76 - 90	See Tables
	91 – 100	See Tables
QA/QC Practices and Criteria	Minimum Accuracy of Flow Monitors Not To Exceed ±5% Calibrated Annually	None
Monitoring Frequency	Continuous (i.e., water flow and fuel flow is sampled, analyzed, and recorded approximately every second. Hardcopy of instantaneous measurements at 15-minute intervals will be kept for a minimum of 5 years.)	Annually
Data Collection Procedure		
Averaging Period	1-Hour averages will be calculated, maintained and submitted with quarterly Excess Emissions Report in the event of an exceedance of the W/F compliance curve	NA
Recordkeeping	Maintain records for the most recent five (5) years	Maintain records for the most recent five (5) years

A November 21, 2006 email from Ken Volmert of the Air Pollution Control Program’s Compliance/Enforcement Section confirmed that this CAM plan is approvable. The table has been modified from the original CAM plan to exclude SO₂ since no control device is used to meet SO₂ standards.

Water flow and fuel flow measurements are taken and electronically recorded about once every second (raw data). This raw electronic data is constantly overwritten, maintaining a few months of history. During operating days, an instantaneous data point will be printed every 15 minutes and maintained for five years. If the raw data water rate were to fall below the required control curve, which is set two gpm higher than the compliance curve, then one hour average reports will automatically be generated for the period to identify one hour exceedances utilizing all of the raw data. An excursion is defined as any time the water rate falls below the control curve and an exceedance is defined as any time the water rate falls below the compliance curve.

Attachment D

RG3 NOX COMPLIANCE TABLES				
Compliance Curve: $(5.73 * \text{Gas Flow}) + (.103 * \text{Ta}) - 57.24 + \text{adj. H2O}$				
Control Curve: $(5.73 * \text{Gas Flow}) + (.103 * \text{Ta}) - 55.24 + \text{adj. H2O}$				
Gas Fuel Flow in lbs./sec.	Ta		Control Curve (GPM H2O)	Compliance Curve (GPM H2O)
8.91	70		3.0243	1.0243
9	70		3.54	1.54
10.5	70		12.135	10.135
11.5	70		17.865	15.865
12	70		20.73	18.73
13	70		26.46	24.46
13.5	70		29.325	27.325
14	70		32.19	30.19
14.5	70		35.055	33.055
15	70		37.92	35.92
15.5	70		40.785	38.785
16	70		43.65	41.65
16.5	70		46.515	44.515
17	70		49.38	47.38
17.5	70		52.245	50.245
18	70		55.11	53.11
18.5	70		57.975	55.975
19	70		60.84	58.84
19.5	70		63.705	61.705
20	70		66.57	64.57
20.5	70		69.435	67.435
8.91	75		3.5393	1.5393
9	75		4.055	2.055
10.5	75		12.65	10.65
11.5	75		18.38	16.38
12	75		21.245	19.245
13	75		26.975	24.975
13.5	75		29.84	27.84
14	75		32.705	30.705
14.5	75		35.57	33.57
15	75		38.435	36.435
15.5	75		41.3	39.3
16	75		44.165	42.165
16.5	75		47.03	45.03
17	75		49.895	47.895
17.5	75		52.76	50.76
18	75		55.625	53.625
18.5	75		58.49	56.49

Gas Fuel Flow in lbs./sec.	Ta		Control Curve (GPM H2O)	Compliance Curve (GPM H2O)
19	75		61.355	59.355
19.5	75		64.22	62.22
20	75		67.085	65.085
20.5	75		69.95	67.95
8.91	80		4.0543	2.0543
9	80		4.57	2.57
10.5	80		13.165	11.165
11.5	80		18.895	16.895
12	80		21.76	19.76
13	80		27.49	25.49
13.5	80		30.355	28.355
14	80		33.22	31.22
14.5	80		36.085	34.085
15	80		38.95	36.95
15.5	80		41.815	39.815
16	80		44.68	42.68
16.5	80		47.545	45.545
17	80		50.41	48.41
17.5	80		53.275	51.275
18	80		56.14	54.14
18.5	80		59.005	57.005
19	80		61.87	59.87
19.5	80		64.735	62.735
20	80		67.6	65.6
20.5	80		70.465	68.465
8.91	85		4.5693	2.5693
9	85		5.085	3.085
10.5	85		13.68	11.68
11.5	85		19.41	17.41
12	85		22.275	20.275
13	85		28.005	26.005
13.5	85		30.87	28.87
14	85		33.735	31.735
14.5	85		36.6	34.6
15	85		39.465	37.465
15.5	85		42.33	40.33
16	85		45.195	43.195
16.5	85		48.06	46.06
17	85		50.925	48.925
17.5	85		53.79	51.79
18	85		56.655	54.655
18.5	85		59.52	57.52
19	85		62.385	60.385
19.5	85		65.25	63.25
20	85		68.115	66.115
20.5	85		70.98	68.98

Gas Fuel Flow in lbs./sec.	Ta		Control Curve (GPM H2O)	Compliance Curve (GPM H2O)
8.91	90		5.0843	3.0843
9	90		5.6	3.6
10.5	90		14.195	12.195
11	90		17.06	15.06
11.5	90		19.925	17.925
12	90		22.79	20.79
13	90		28.52	26.52
13.5	90		31.385	29.385
14	90		34.25	32.25
14.5	90		37.115	35.115
15	90		39.98	37.98
15.5	90		42.845	40.845
16	90		45.71	43.71
16.5	90		48.575	46.575
17	90		51.44	49.44
17.5	90		54.305	52.305
18	90		57.17	55.17
18.5	90		60.035	58.035
19	90		62.9	60.9
19.5	90		65.765	63.765
20	90		68.63	66.63
20.5	90		71.495	69.495
8.91	95		5.5993	3.5993
9	95		6.115	4.115
10.5	95		14.71	12.71
11.5	95		20.44	18.44
12	95		23.305	21.305
13	95		29.035	27.035
13.5	95		31.9	29.9
14	95		34.765	32.765
14.5	95		37.63	35.63
15	95		40.495	38.495
15.5	95		43.36	41.36
16	95		46.225	44.225
16.5	95		49.09	47.09
17	95		51.955	49.955
17.5	95		54.82	52.82
18	95		57.685	55.685
18.5	95		60.55	58.55
19	95		63.415	61.415
19.5	95		66.28	64.28
20	95		69.145	67.145
20.5	95		72.01	70.01
8.91	100		6.1143	4.1143
9	100		6.63	4.63
10.5	100		15.225	13.225

Gas Fuel Flow in lbs./sec.	Ta		Control Curve (GPM H20)	Compliance Curve (GPM H20)
11.5	100		20.955	18.955
12	100		23.82	21.82
13	100		29.55	27.55
13.5	100		32.415	30.415
14	100		35.28	33.28
14.5	100		38.145	36.145
15	100		41.01	39.01
15.5	100		43.875	41.875
16	100		46.74	44.74
16.5	100		49.605	47.605
17	100		52.47	50.47
17.5	100		55.335	53.335
18	100		58.2	56.2
18.5	100		61.065	59.065
19	100		63.93	61.93
19.5	100		66.795	64.795
20	100		69.66	67.66
20.5	100		72.525	70.525

Attachment E

TITLE V: CLEAN AIR INTERSTATE RULE (CAIR) PERMIT

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

Installation Name: Ralph Green Generating Station, ORIS Code: 2092
Unit ID: 3

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 Unit 3 at Ralph Green Generating Station, plant 037-0003.

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.

Date

Director or Designee,
Department of Natural Resources

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continued

(b) Monitoring, reporting, and recordkeeping requirements.

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

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

(c) Nitrogen oxides emissions requirements.

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

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

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

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

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

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

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

Sulfur dioxide emission requirements.

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

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

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

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

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

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

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

Nitrogen oxides ozone season emissions requirements.

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

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

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

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

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

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

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

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**STEP 3,
continued**

(d) Excess emissions requirements.

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

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

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

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

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

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

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

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

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

(e) Recordkeeping and Reporting Requirements.

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

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

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

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

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

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

(f) Liability.

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

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

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

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(g) Effect on Other Authorities.

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

Certification

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

Name	
Scott Heidtbrink	
Signature	Date
<i>Scott Heidtbrink</i>	4/2/12

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 November 10, 2011;
- 2) 2010 Emissions Inventory Questionnaire, received February 11, 2011; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.
- 4) U.S. EPA's Factor Information Retrieval (FIRE) Date System 6.25
- 5) Construction Permit #1280-006
- 6) EPA Letter Granting Permit to Construct Dated January 29, 1981
- 7) Construction Permit #082007-020

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 10-2.210, *Control of Emissions from Solvent Metal Cleaning*, 10 CSR 10-2.215, *Control of Emissions from Solvent Cleanup Operations*, and 10 CSR 10-2.260 *Control of Petroleum Liquid Storage, Transfer and Transfer*

These regulations only apply to Clay, Jackson and Platte Counties and are therefore not applicable to this facility, which is located in Cass County

10 CSR 10-6.220 *Restriction of Emission of Visible Air Particles*

The turbine is not subject to this rule because the rule does not apply to stationary internal combustion engines in the Kansas City metropolitan area. [10 CSR 10-6.220(1)(A)]

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

This rule does not apply because the installation qualifies for the exemption in 10 CSR 10-6.260(1)(A) since 10 CSR 10-6.070 applies and places limits on emissions of sulfur dioxide.

10 CSR 10-6.270, *Acid Rain Source Permits Required*

This installation is not required to obtain an acid rain permit because it qualifies for the exemption in 40 CFR §72.6(b).

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

The requirements of this rule do not apply to sources that are implementing the requirements of 10 CSR 10-6.364. [10 CSR 10-6.350(1)(F)]

10 CSR 10-6.360, *Control of NO_x Emissions from Electric Generating Units and Nonelectric Generating Boilers*

The permittee qualifies for the exemption in 6.360(1)(C), since these units have a federally enforceable condition restricting them to burning only natural gas.

10 CSR 10-6.368, *Control of Mercury Emissions from Electric Generating Units*

This rule applies to coal fired boilers and stationary, coal fired combustion turbines. The turbines at the installation use natural gas exclusively. Therefore this rule does not apply. [10 CSR 10-6.368(1)(A)1]

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

This rule does not apply because the turbines burn natural gas which is excluded from process weight: Process weight is defined as the total weight of all materials, including solid fuels, introduced into an emission unit, which may cause any emission of particulate matter, but excluding liquids and gases used solely as fuels and air introduced for purposes of combustion. [10 CSR 10-6.400(2)(A)]

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

This rule does not apply to the space heaters because they are fuel by natural gas. [10 CSR 10-6.405(1)(C)]

Construction Permits

1) Construction Permit #1280-006, Issued October 28, 1980

This permit was issued for the installation of a natural gas fired turbine to be used for electrical power generation. This permit contains special conditions which are applied in Permit Condition EP1-001.

2) Letter Granting Permit to Construct Dated January 29, 1981

This EPA permit to construct letter was issued for the natural gas fired turbine and contains a condition limiting the amount of electric power generated. It is included in this operating permit as Permit Condition EP1-002.

3) No Construction Permit Required Determination, Issued August 8, 1995

4) Construction Permit #082007-020, Issued August 28, 2007

This permit was issued to allow for the burning of number 2 fuel oil in the turbine. The conditions of this construction permit are not included in the operating permit because diesel tanks were never installed and the turbine has never been operated on diesel fuel. Since it has been over two years since the effective date of this permit and construction never began, the permit is considered revoked. If the installation wishes to use diesel fuel they must apply for another construction permit.

New Source Performance Standards (NSPS) Applicability

40 CFR Part 60, Subpart Ka, *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978 and Prior to July 23, 1984*

The lube oil tank is less than the minimum size specified in the rule of 40,000 gallons and as such is not subject to this regulation.

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

The provisions of this subpart are applicable to all stationary gas turbines, which commence construction, modification, or reconstruction after October 3, 1977, with a heat input at peak load equal to or greater than 10.7 gigajoules per hour, based on the lower heating value of the fuel fired. The combustion turbine (EP1) was constructed in 1981 and has a peak load greater than 10.7 gigajoules per hour. Therefore, NSPS Subpart GG applies to the combustion turbine (EP1).

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

$$STD = 0.0075 \times \frac{14.4}{Y}$$

Where:

STD = allowable NO, emissions (% by volume at 15 percent oxygen and on a dry basis), and
 Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt-hour.

Given: Manufacturer's Rated Heat Rate = 11,160 Btu/kW-hr

$$Y = 11,160 \frac{Btu}{kW - hr} \times \frac{1.0548 kJ}{Btu} \times \frac{1 kW}{1000 W} = 11.77 \frac{kJ}{W - hr}$$

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

Fuel Bound Nitrogen	
% By Weight	F (NO _x percent by volume)
N < 0.015	0
0.015 < N < 0.25	0.04N
0.1 < N < 0.25	0.04 + 0.0067(N - 0.1)
N > 0.25	0.005

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

F = 0

STD (NO_x Emission Limitation) Calculation

$$STD = 0.0075 \times \frac{14.4}{Y} + F$$

$$= 0.0075 \times \frac{14.4}{11.77}$$

$$= 0.009175\% \text{ or } 91.75 \text{ ppmv NO at 15\% oxygen}$$

40 CFR Part 60, Subpart KKKK, *Standards of Performance for Stationary Combustion Turbines*

Subpart KKKK does not apply to EP1 because the turbines did not commence construction, modification or reconstruction after February 18, 2005. If the installation would have started combusting diesel fuel as permitted by Construction Permit #082007-020 it would have been considered a modification, but since construction never began the rule does not apply.

Maximum Achievable Control Technology (MACT) Applicability

40 CFR Part 63 Subpart T, *National Emission Standards for Halogenated Solvent Cleaning*

This rule does not apply because the installation does not use solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform in their parts washer. [§63.460(a)]

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

This rule only applies to major sources of HAP. The installation is below the major source threshold for HAP therefore this rule does not apply.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

40 CFR Part 61, Subpart M – *National Emission Standards for Asbestos* is applicable to the installation and has been applied within this permit (see Section IV. Core Permit Requirements).

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.

Because the facility's combustor turbine (EP1) uses a control device to achieve compliance with an emission limitation and the pre-control emissions are greater than the major source threshold level, 40 CFR Part 64 is applicable to this emissions unit and CAM requirements are included in the permit.

Greenhouse Gas Emissions

On May 13, 2010, EPA issued the GHG Tailoring Rule which set the major source threshold for CO₂e to be 100,000 tons per year within 40 CFR Part 70. As of July 1, 2011, all Title V operating permits are required to include GHG emissions. Potential emissions of greenhouse gases (CO₂e) for this installation are calculated to be 71,400 tons, classifying the installation as a minor source of GHGs.

This source is not subject to 40 CFR Part 98 - *Mandatory Greenhouse Gas Reporting Rule* at this time. However, should the installation's actual emissions exceed the 25,000 metric ton threshold, it would be subject at that time. In addition, Missouri regulations do not require the installation to report CO₂ emissions in their Missouri Emissions Inventory Questionnaire; therefore, the installation's actual CO₂ emissions were not included within this permit.

Updated Potential to Emit for the Installation

Pollutant	Potential to Emit (tons/yr) ¹
CO	52.69
CO ₂ e	71,400
HAP	0.66
NO _x	205.63
PM ₁₀	4.24
PM _{2.5}	4.24
SO _x	41.13
VOC	1.35

¹Each emission unit was evaluated for the combustion of 1.224×10^9 cubic feet of natural gas per Construction Permit #1280-006

Other Regulatory Determinations

40 CFR Part 97 *Cross-State Air Pollution Rule (CSAPR)*:

- ◆ On December 30, 2011, the United States Court of Appeals for the D.C. Circuit issued its [ruling](#) to stay the CSAPR pending judicial review. The court's decision is not a decision on the merits of the rule.
- ◆ On January 10, 2012, EPA returned the vintage 2012 CAIR allowances to allowance accounts. Additional allocations of 2012 allowances will be done as soon as the allocation files are submitted to EPA by the states. If market participants wish to use the CAMD Business System to record transfers of the CSAPR allowances or to record other CSAPR related information, they may do so although they are not required to at this time.
- ◆ On January 26, 2012, EPA signed a [notice](#), which will be published in the Federal Register, indicating that the Agency will not require compliance with the CSAPR [supplemental rule](#) while the stay is in effect. EPA finalized the supplemental rule on December 15, 2011 to include Missouri in the ozone season NO_x program in the CSAPR.
- ◆ On February 7, 2012, EPA issued two sets of minor adjustment to the CSAPR. The adjustments provide flexibility to states by increasing budgets in seventeen states and easing limits on market-based compliance options.
- ◆ On March 1, 2012, EPA filed its brief on the merits of the legal challenges to the CSAPR. EPA's brief defends the rule and sets forth the reasons why the rule should be upheld by the court.
- ◆ On April 20, 2012, EPA announced it had reviewed the comments submitted in response to the Direct Final Revisions Rule. EPA intends to withdraw the Direct Final Revisions Rule prior to its effective date and take final action on the proposed revisions rule expeditiously.
- ◆ On May 10, 2012, EPA withdrew the Direct Final Revisions Rule (77 FR 10342, February 21, 2012). The Agency issued a parallel proposal (77 FR 10350, February 21, 2012) along with the direct final rule proposing the same revisions and will take final action on the proposed revisions rule expeditiously. The withdrawal does not affect the Final CSAPR Revisions Rule (77 FR 10324, February 21, 2012).
- ◆ On June 5, 2012, EPA issued the final set of minor adjustments to the Cross-State Air Pollution Rule (CSAPR). This final rule will help sources comply with the program by increasing state budgets for Arkansas, Georgia, Indiana, Kansas, Louisiana, Mississippi, Missouri, Nebraska, New York, Ohio, Oklahoma, South Carolina, and Texas. This rule also revises new unit set-asides for Arkansas, Louisiana, and Missouri.
- ◆ On August 21, 2012, the U.S. Court of Appeals for the D.C. Circuit issued its [ruling](#) on CSAPR. EPA is reviewing the court decision. CAIR remains in place.

- ◆ On October 3, 2012, the United States filed a [petition](#) seeking en banc rehearing of the U.S. Court of Appeals for the D.C. Circuit's August 21, 2012 decision regarding EPA's Cross-State Air Pollution Rule.

For the latest information on the implementation of CSAPR visit:

<http://www.epa.gov/crossstaterule/bulletins.html>

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).

Prepared by:

Colin Janssen, EIT

Mr. Paul M. Ling
KCP&L Environmental Manager
P.O. Box 418679
Kansas City, MO 64141

Re: KCP&L Greater Missouri Operations Company -
Ralph Green Generating Station, 037-0003
Permit Number: **OP2012-054**

Dear Mr. Ling:

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 do not hesitate to contact Colin Janssen at the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

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

MJS:cjk

Enclosures

c: Kansas City Regional Office
PAMS File: 2011-11-024

MEMORANDUM

DATE: September 4, 2012

TO: 2011-11-024, KCP&L – Ralph Green Generating Station (037-0003)

FROM: Colin Janssen, EIT
B.S. Civil Engineering

SUBJECT: Response to Public Comments

The draft Part 70 Operating Permit for KCP&L – Ralph Green Generating Station (037-0003) was placed on public notice as of July 26, 2012 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 August 3, 2012 the Air Pollution Control Program received comments from EPA Region 7's Bob Cheever, Environmental Engineer. The comments will be addressed within this Response to Public Comments document.

Public Comment #1:

The draft Part 70 operating on public notice for review indicates that the "Responsible Official" is the "Sr. Director Renewables & Gas Generation," and also indicates that the "Sr. Director Renewables & Gas Generation" signed the application utilized in the preparation of this permit.

10 CSR 10-6.020 defines the "Responsible Official" to include one of the following:

A. The president, secretary, treasurer, or vice-president of a corporation in charge of a principal business function, any other person who performs similar policy and decision-making functions for the corporation, or a duly-authorized representative of this person if the representative is responsible for the overall operation of one (1) or more manufacturing, production, or operating facilities applying for or subject to a permit and either—

(I) The facilities employ more than two hundred fifty (250) persons or have a gross annual sales or expenditures exceeding twenty-five (25) million dollars (in second quarter 1980 dollars); or

(II) The delegation of authority to this representative is approved in advance by the permitting authority;

B. A general partner in a partnership or the proprietor in a sole proprietorship;

C. Either a principal executive officer or ranking elected official in a municipality or state, federal, or other public agency. For the purpose of this subparagraph, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency; or

D. The designated representative of an affected source insofar as actions, standards, requirements, or prohibitions under Title IV of the Act or the regulations promulgated under the Act is concerned and the designated representative for any other purposes under 40 CFR part 70.

Additionally, the definition section of 40 CFR 70.2 *Responsible official* (1)(i) states that the "Plant Manager" may sign the compliance certification as a responsible official if "The delegation of authority to such representatives is approved in advance by the permitting authority". This delegation is further clarified in the Part 70 preamble on page 32275 of the July 21, 1992 *Federal Register*. It states: In the final rule, the definition of "responsible official" has been expanded to allow for delegation of authority to a plant manager where the delegation has been approved in advance by the permitting authority. The individual referred to as "Sr. Director Renewables & Gas Generation" does not appear anywhere in the allowance for the "Responsible Official."

Therefore, EPA suggests that MDNR should provide an explanation, in the statement of basis, as to the justification for allowing the "Sr. Director Renewables & Gas Generation" to serve as the facility Responsible Official."

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

It is the program's belief that the Senior Director is a functionally equivalent title for one who is in charge of a principal business function, or performs similar policy and decision-making functions for the corporation. Therefore, the draft was not changed.

Public Comment #2:

Permit Condition EP1-003 includes sections on emission limitation, monitoring, record keeping and reporting. The following are suggested modifications:

Emission Limitation

1. No owner or operator subject to the provisions of 40 CFR Part 60, Subpart GG shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of 91.75 ppmv at 15 percent oxygen on a dry basis. [§60.332(a)(1)]

3. The permittee shall comply with one of the following conditions: [§60.333]

No owner or operator subject to the provisions of 40 CFR Part 60, Subpart GG shall:

a) 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. [§60.333(a)]

b) burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight. [§60.333(b)]

Monitoring

1. The permittee shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water or steam to fuel being fired in the turbine. [§60.334(a)]

3.) Finally, the term "administrator / Administrator" shows up in Permit Condition EP1-003 Monitoring Item 2 and in Permit Condition EP1-005 Quality Improvement Plan Item 4 and we suggest that the term "Director" may be more appropriate.

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

These changes have been made.

CJ/kjc