



Missouri Department of Natural Resources
Air Pollution Control Program

PART 70

PERMIT TO OPERATE

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

Operating Permit Number: OP2009-004
Expiration Date: 02 - 08 - 2014
Installation ID: 019-0004
Project Number: 2004-01-051

Installation Name and Address

University of Missouri-Columbia (MU) Power Plant
417 South 5th Street
Columbia, MO 65211-2030
Boone County

Parent Company's Name and Address

The Curators of University of Missouri
8 Research Park Development Building
Columbia, MO 65211-3050

Installation Description:

The University of Missouri-Columbia operates a combined heat and power facility to generate steam and electricity to serve the MU campus.

FEB - 9 2009

Effective Date

Steven Feiler for JLK

Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

The University of Missouri-Columbia operates a combined heat and power facility to generate steam and electricity to serve the MU campus.

Reported Air Pollutant Emissions, tons per year								
Year	Particulate Matter ≤ Ten Microns (PM-10)	Particulate Matter ≤ 2.5 Microns (PM-2.5)	Sulfur Oxides (SO _x)	Nitrogen Oxides (NO _x)	Volatile Organic Compound s(VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2007	13.12	3.30	10,665.39	860.83	4.84	696.30	0.01	57.95
2006	12.62	3.50	9,679.53	761.94	4.76	696.74	0.01	53.89
2005	8.62	2.21	9,560.39	739.26	4.18	504.18	0.00	46.96
2004	8.15	2.58	10,029.65	735.83	4.11	511.15	0.00	48.21
2003	4.12	1.88	9,426.48	707.80	4.05	442.42	0.00	*

* Information not available.

EMISSION UNITS WITH LIMITATIONS

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

Emission Unit #	Description of Emission Unit	
EU0010	Hydrated Lime Storage Silo	EP32
EU0020	East Ash Silo Conveying Air Vent	EP05
EU0025	West Ash Silo Conveying Air Vent	EP12
EU0030	Boiler 7	EP07
EU0040	Boiler 8	EP08
EU0050	Boiler 9	EP09
EU0060	Boiler 10	EP10
EU0070	Boiler 11	EP11
EU0080	Boiler 12	EP20
EU0100	Southwest Well Generator	EP23
EU0110	East Well Engine Driven Pump	EP25
EU0120	North Well Generator	EP18
EU0130	Combustion Turbine-duct burner, Train 1	EP26
EU0140	Combustion Turbine-duct burner, Train 2	EP27
EU0150	Backup Diesel Generator 1	EP29
EU0160	East Ash Silo Unloading	EP06
EU0165	West Ash Silo Unloading	EP13

EMISSION UNITS WITHOUT LIMITATIONS

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

Description of Emission Source

Two (2) No. 2 Fuel Oil Tanks, 19,500 gallon capacity
Coal Unloading, 200 tons per hour
Truck Unloading, 50 tons per hour
Coal Storage, 6,000 tons capacity
Limestone Storage, 250 tons capacity
Coal Conveying, 200 tons per hour
Limestone Conveyor, 50 tons per hour
North Well Generator Storage Tank, 465 gallon capacity
Southwest Well Generator Storage Tank, 465 gallon capacity
South Well Engine Driven Pump
Sulfuric Acid Tank
Used Oil Tank
Five (5) Gaseous Chlorine Systems for Public Drinking Water System
Two (2) Portable Kerosene Space Heaters, 150,000 Btu per hour
No. 2 Fuel Oil Storage Tank, 500 gallon capacity
Brinemaker Tank

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

1. Construction Permit 0886-004, Issued August 18, 1986
2. Construction Permit 0294-018, Issued January 28, 1994
3. Construction Permit 0494-020, Issued April 27, 1994
4. Construction Permit 1096-021, Issued October 15, 1996
5. Amendment to Construction Permit 0494-020, Issued May 27, 1994
6. Construction Permit 0296-007, Issued January 31, 1996
7. Construction Permit 072000-005, Issued June 19, 2000
8. Amendment to Construction Permit 072000-005, Issued September 26, 2000
9. Compliance Assurance Monitoring (CAM) Plan
10. Settlement Agreement dated April 2, 1992

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.

EU0010 – Hydrated Lime Storage Silo			
Emission Unit	Description	Manufacturer/ Model #	2007 EIQ Reference #
EU0010	Hydrated Lime Storage Silo- Cement (lime) unloading to silo; MHDR= 25 tons/hr; Constructed 2007; Control Device: Filter Vent- 99.9% PM10 Control	N/A	EP32

<p>PERMIT CONDITION EU0010-001 10 CSR 10-6.220 Restriction of Emissions of Visible Air Contaminant</p>
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Emission Limitation:

1. No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **new** source any visible emissions with opacity greater than twenty percent.
2. Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty minutes air contaminants with opacity up to sixty percent.

Monitoring:

1. The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
2. The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
3. If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Record Keeping:

1. The permittee shall maintain records of all observation results (see Attachment A1 or A2), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
2. The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
3. The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
4. Attachments A1 or A2, B and C, contain logs including these record keeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
5. These records shall be made available immediately for inspection to Department of Natural Resources' personnel upon request.
6. 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, Missouri 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
2. Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

PERMIT CONDITION EU0010-002

10 CSR 10-6.400 Restriction of Emissions of Particulate Matter From Industrial Processes
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Emission Limitation:

1. Particulate matter shall not be emitted from EU0010 in excess of 34.43 pounds per hour. These emission rates were calculated using one of the following equations:
For process weight rates of 60,000 pounds per hour or less:
$$E = 4.10(P)^{0.67}$$

Where:
E = rate of emission in lb/hr
P = process weight rate in tons/hr = 25
2. The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grains per standard cubic foot.

Monitoring/Record Keeping:

1. The permittee shall retain the potential to emit calculations in Attachment D which demonstrates that the above emission limitations will not be exceeded.
2. The calculation shall be made available immediately for inspection to Department of Natural Resources' personnel upon request.
3. All records shall be kept for a period of five years.

Reporting:

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

EU0020 and EU0025 – East and West Ash Silo Conveying Air Vent			
Emission Unit	Description	Manufacturer/ Model #	2007 EIQ Reference #
EU0020 EU0025	East and West Ash Silo Conveying Air Vents- Cement (ash) unloading to storage bin; MHDR=5 tons/hr; East Constructed 1980, West Constructed 1987; Control Device: Single Cyclone Separator/Fabric Filter- 99% PM10 Control	East – Detroit Stoker, West-Hydro-Ash	EP05 EP12

<p>PERMIT CONDITION (EU0020 & EU0025)-001 10 CSR 10-6.220 Restriction of Emissions of Visible Air Contaminant</p>

Emission Limitation:

1. No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **new** source any visible emissions with opacity greater than twenty percent.
2. Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty minutes air contaminants with opacity up to sixty percent.

Monitoring:

1. The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
2. The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
3. If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Record Keeping:

1. The permittee shall maintain records of all observation results (see Attachment A1 or A2), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
2. The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
3. The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
4. Attachments A1 or A2, B and C, contain logs including these record keeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
5. These records shall be made available immediately for inspection to Department of Natural Resources' personnel upon request.
6. 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, Missouri 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
2. Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

<p align="center">PERMIT CONDITION (EU0020 & EU0025)-002</p>

<p align="center">10 CSR 10-6.400 Restriction of Emissions of Particulate Matter From Industrial Processes</p>
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Emission Limitation:

1. Particulate matter shall not be emitted from EU0020 or EU0025 in excess of 12.05 lb/hr. These emission rates were calculated using one of the following equations:
For process weight rates of 60,000 lb/hr or less:
$$E = 4.10(P)^{0.67}$$

Where:
E = rate of emission in lb/hr
P = process weight rate in tons/hr = 5
2. The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grains per standard cubic foot.

Monitoring/Record Keeping:

1. The permittee shall retain the potential to emit calculations in Attachment D which demonstrates that the above emission limitations will not be exceeded.
2. The calculation shall be made available immediately for inspection to Department of Natural Resources' personnel upon request.
3. All records shall be kept for a period of five years.

Reporting:

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

EU0030 through EU0060 – Boilers 7, 8, 9, & 10			
Emission Unit	Description	Manufacturer/ Model #	2007 EIQ Reference #
EU0030	Boiler 7- Overfeed Stoker, bituminous coal/ tire derived fuel/biomass; MHDR=104 MMBtu/hr; Constructed 1956; Control Device: High Temperature Fabric Filter: 99% PM10/Lead	Wickes	EP07
EU0040	Boiler 8- Overfeed Stoker, bituminous coal/ tire derived fuel/biomass; MHDR=104 MMBtu/hr; Constructed 1956; Control Device: High Temperature Fabric Filter: 99% PM10/Lead	Wickes	EP08
EU0050	Boiler 9- Spreader Stoker, bituminous coal/tire derived fuel/biomass/natural gas; MHDR=175 MMBtu/hr; Constructed 1966; Control Device: High Temperature Fabric Filter: 99% PM10/Lead	Riley	EP09
EU0060	Boiler 10- Spreader Stoker, bituminous coal/fire derived fuel/biomass/natural gas; MHDR=269 MMBtu/hr; Constructed 1970; Control Device - High Temperature Fabric Filter: 99% PM10/Lead	Riley	EP10

<p>PERMIT CONDITION (EU0030-EU0060)-001 10 CSR 10-6.260 Restriction of Emissions of Sulfur Compounds</p>
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Emission Limitation:

1. No person shall cause or permit emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of eight (8) pounds of sulfur dioxide per million British thermal units actual heat input averaged on any consecutive three-hour time period
2. No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010, Ambient Air Quality Standards.
3. No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010, Ambient Air Quality Standards. [10 CSR 10-6.260(4) of August 30, 1996 version, 10 CSR 10-6.260(3)(B) of May 30, 2004 version & 10 CSR 10-6.010 Ambient Air Quality Standards]

Operational Limitation/Equipment Specifications:

The emission units shall be limited to fuel with a sulfur content of no more than 4.63 percent sulfur by weight.

Monitoring:

1. The permittee shall maintain an accurate record of the sulfur content of fuel used. The installation shall maintain records of the amount of fuel burned and verify the sulfur content. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
2. If the requirements of condition 1 cannot be met, then compliance to the emission limitations shall be determined by source testing. The heating value of the fuel shall be determined as specified in 10 CSR 10-6.040(2). Source testing to determine compliance shall be performed as specified in 10 CSR 10-6.030(6). The actual heat input shall be determined by multiplying the heating value of the fuel by the amount of fuel burned during the source test period.
3. Other methods approved by the permitting agency in advance may be used to verify compliance.

Record Keeping:

1. If monitoring option 1 is used to verify compliance, then the permittee shall maintain records on the premises of the analysis of all fuel used which shows weight percentage of sulfur in the fuel. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
2. If monitoring option 2 is used to verify compliance, then the permittee shall maintain records on the premises of all source testing performed.
3. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
4. All records shall be maintained for five years.

Reporting:

The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after any exceedance of the emission limit or sulfur content limit established by 10 CSR 10-6.260, or any malfunction which causes an exceedance.

PERMIT CONDITION (EU0030-EU0060)-002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63 Subpart DDDDD,
National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and
Institutional Boilers and Process Heaters

Note: On July 20, 2007, the United States Court of Appeals, District of Columbia Circuit, ordered a full vacatur of 40 CFR Part 63 Subpart DDDDD. The vacatur has the same effect as if this MACT rule was never promulgated. This means there is no longer a September 13, 2007 compliance date for sources affected by this HAP source category. If and when the EPA promulgates an approved version of this MACT, emission units EU0030 through EU0060 will be re-evaluated for applicability.

PERMIT CONDITION (EU0030-EU0060)-003

10 CSR 10-3.060 Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment
Used For Indirect Heating
40 CFR Part 64, Compliance Assurance Monitoring (CAM)

Emission Limitation:

The permittee shall not emit particulate matter in excess of 0.26 pounds per million British thermal units of heat input.

Operational Limitation/Equipment Specifications:

1. The baghouse shall be maintained such that the pressure drop remains in the normal operating range whenever the emission unit is in operation.
2. All instruments and control equipment shall be calibrated, maintained and operated according to the manufacture specifications and recommendations.

Monitoring:

1. Continuous Opacity Monitoring System (COMS):
 - a) The permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring and automated data acquisition system for measuring and recording the opacity (in percent opacity) in order to provide a reasonable assurance of the performance of the fabric filter. Previously installed and certified monitoring systems that conform to provisions of the Performance Specification for COMS meet the monitoring requirements.
 - b) The installation shall conduct a daily calibration check for zero and span adjustments (span value must be eighty, ninety or one hundred percent) on the monitoring system as outlined by 40 CFR Part 60, Appendix B, Performance Specification 1.
 - c) The permittee shall conduct a quarterly neutral density audit and calibration error test on the COMS.
 - d) COMS neutral density audit filters will be certified annually.
 - e) The performance requirements for the COMS shall be as specified in Table 1: MU Power Plant - CAM Monitoring Approach for North and South Baghouses; Boilers 7, 8, 9 & 10.
 - f) An excursion and its associated averaging time for each emission unit shall be as specified in Table 1: MU Power Plant - CAM Monitoring Approach for North and South Baghouses; Boilers 7, 8, 9 & 10.
 - g) MU Power Plant shall conduct monitoring continuously except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities, in accordance with §64.7(c). Although compliance with the PM emission limitation may be exempted in some circumstances during conditions such as startup, shutdown, and malfunction, MU Power Plant is required to operate and maintain the source in accordance with good air pollution control practices for minimizing emissions during such periods. This requires MU Power Plant to minimize periods of startup, shutdown or malfunction, and take corrective action to restore normal operation and prevent recurrence of the problem that led to the excursion except where the excursion was related to an excused startup, shutdown, or malfunction.
 - h) Performance testing for compliance with the applicable PM emission limit shall be performed within one year of issuance or the part 70 permit renewal, and every three years thereafter for the life of the Part 70 permit, unless that permit has been legally modified.

Table 1:

MU Power Plant - CAM Monitoring Approach for North and South Baghouses; Boilers 7, 8, 9 & 10		
Particulate Matter (PM) Compliance Indicator		
Indicator	Opacity	
Measurement Approach	Continuous Opacity Monitoring System (COMS)	
Indicator Range	Typical opacity levels during normal operation are 0-10%. An excursion is defined as a 1-hour block average opacity equal to or greater than 21%. Excursions trigger an inspection, corrective action, and a reporting requirement. Performance testing for compliance with the applicable PM emission limit shall be performed within 1 year of issuance or the Part 70 permit renewal, and every 3 years thereafter for the life of the Part 70 permit, unless that permit has been legally modified.	
Performance Criteria		
Data Representativeness	Boilers 7, 8 & 9 discharge flue gas to the North Baghouse (i.e., a 10-compartment, reverse air cleaning baghouse) and a common stack. The COMS is located downstream of the baghouse, but before the North Stack. The COMS complies with the applicable version of 40 CFR Part 60, Appendix B, Performance Specification 1 (PS-1).	Boiler 10 discharges flue gas to the South Baghouse (i.e., an 8-compartment, reverse air cleaning baghouse). The COMS is located downstream of the baghouse but before the South Stack. The COMS complies with the applicable version of 40 CFR Part 60, Appendix B, Performance Specification 1 (PS-1).
Verification of Operational Status	Not applicable since the selected monitoring approach utilizes existing COMS that were initially installed and evaluated per the applicable version of PS-1.	
QA/QC Practices and Criteria	Perform a daily zero and calibration drift check, periodic cleaning of optical surfaces and other periodic QA/QC checks as specified in applicable version of PS-1.	
Monitoring Frequency	Continuous [i.e., the COMS is to complete a minimum of one cycle (i.e., sampling, analyzing, and data recording) for each successive 10-second period].	
Data Collection Procedure		
Averaging Period	The data acquisition system is to reduce the 10-second data points to 6-minute and 1-hour block averages.	
Reporting	Summary information on the number, duration, and cause for any excursions and COMS downtime will be reported on a quarterly basis in accordance with applicable requirements of 10 CSR 10-6.220(4)(A).	

- i) *Proper Maintenance.* At all times, the permittee shall maintain the monitoring system, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. [40 CFR 64.7(b)].
- j) *Continued Operation.* Except for monitoring system malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation at all times that the boilers (EU0030 through EU0060) are operating. Unit operations are defined when any fuel is burned in the boiler. Periods when the fans are operated for maintenance or cleaning during unit outages are not considered unit operations. Data recorded during monitoring system malfunctions, associated repairs, and required quality assurance or control activities shall

not be used for data averages and calculations, or fulfilling a minimum data availability requirement. 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 system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR 64.7(c)]

- k) The permittee shall follow the following procedure in response to excursions or exceedances.
- i. Upon detecting an excursion or exceedance, the permittee shall restore operation of the boiler(s) (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.
[40 CFR 64.7(d)(1)]
 - ii. 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.
[40 CFR Part 64.7(d)(2)]

Record Keeping:

1. The permittee shall keep a record of continuous opacity monitoring system data.
2. The permittee shall record the daily monitoring system calibration check done on the continuous opacity monitoring system.
3. A record of any stack testing conducted on the emission unit, any subsequent testing will be maintained, and all other records required by this rule shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
4. All records must be kept for five (5) years.

Reporting:

1. General Requirements:
The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after any exceedance of the limits established by this regulation, or any malfunction that causes a limit exceedance.
2. Opacity Reporting:
The permittee shall report quarterly on the COMS. The quarterly report should give the day, the duration that the emission unit was out of the opacity limitations set forth in this rule, and a data summary of the exceedance (the data summary shall consist of the magnitude in actual percent opacity of all one-hour averages of opacity greater than twenty-one percent (21%). Additionally, the report shall provide a detailed explanation of why the plant was in exceedance (nature and cause) and corrective action taken by the MU Power Plant to bring the emission unit back into the

limitations set forth in this rule. If no excess emissions occurred within the quarter and the continuous opacity monitoring system has not been inoperative, repaired, or adjusted, that information shall be included in the report. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.

PERMIT CONDITION (EU0030-EU0060)-004

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

April 2, 1992 Settlement Agreement for Boiler 10 and South Stack

Emission Limitation:

1. No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **existing** source any visible emissions with opacity greater than forty percent.
2. Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty minutes air contaminants with opacity up to sixty percent.
3. MU shall continue to inject fly ash and/or lime into the duct work prior to the baghouse for Boiler 10 at such a rate as to insure continued compliance with the opacity standard. [April 2, 1992 Consent Agreement]

Monitoring/Record Keeping

The permittee shall maintain a file (hard copy or electronic version) of the following information for a minimum of two (2) years from the date the data was collected:

1. All information reported in the quarterly summaries; and
2. All six-minute opacity averages and daily Quality Assurance/Quality Control records.

Reporting:

The permittee shall submit a quarterly written report to the director. All quarterly reports shall be post marked no later than the thirtieth day following the end of each calendar quarter and shall include the following emissions data:

1. A summary including total time for each cause of excess emission and/or monitor downtime;
2. Nature and cause of excess emissions, if known;
3. The six-minute average opacity values greater than the opacity emission requirements;
4. The date and time identifying each period during which the COMS was inoperative (except for zero and span checks), including the nature and frequency of system repairs or adjustments that were made during these times; and
5. If no excess emissions have occurred during the reporting period and the COMS has not been inoperative, repaired or adjusted, this information shall be stated in the report.
6. The permittee shall submit all reports to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102.

EU0070 – Boiler 11			
Emission Unit	Description	Manufacturer/ Model #	2007 EIQ Reference #
EU0070	Boiler 11- Atmospheric Fluidized Bed Combustion, Circulating Bed, bituminous coal/natural gas/biomass/tire derived fuel; MHDR=259.5 MMBtu/hr; Constructed 1986; Control Device - High Temperature Fabric Filter: 99% PM10/Lead	Riley	EP11

<p>PERMIT CONDITION EU0070-001 10 CSR 10-6.060 Construction Permits Required Construction Permit 0886-004 10 CSR 10-6.070 New Source Performance Standards 40 CFR Part 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR Part 64, Compliance Assurance Monitoring (CAM)</p>

Emission Limitation:

1. The permittee shall not permit nor allow the emission rate of particulate matter from Boiler 11 to exceed 0.05 pounds per million British thermal units on a thirty-day rolling average. [Special Condition 1] [40 CFR 60.42b(a)(1)]
2. The permittee shall not permit nor allow the emission rate of sulfur dioxide from this proposed boiler operation to exceed 1.2 pounds per million British thermal units on a thirty-day rolling average. [Special Condition 2] [40 CFR 60.42b(d)]
3. The permittee shall not permit nor allow the emission rate of nitrogen oxides from this proposed boiler operation to exceed 0.6 pounds per million British thermal units on a thirty-day rolling average. [Special Condition 3] [40 CFR 60.44b(a)]
4. The permittee shall not permit nor allow the emissions from this boiler operation into the surrounding air any gases which exhibit opacity greater than twenty percent, except for one six-minute period per hour of not more than twenty-seven percent opacity. [Special Condition 4] [40 CFR 60.43b(f)]
5. These standards shall apply at all times except during periods of startup, shutdown, or malfunction. [Special Conditions 1, 2, and 3]

Operational Limitation:

1. The permittee shall not burn any fuel other than coal, tire derived fuel, or biomass in this unit except during periods of boiler start-up, when natural gas shall be allowed. [Special Condition 5]
2. The permittee shall be barred from supplying more than one-third of the potential electric output capacity of the boiler and associated electrical power generation turbines, or more than twenty-five Megawatts electrical output of the boiler and associated electrical power generation turbines, to any utility power distribution system for sale. [Special Condition 6]

Monitoring:

1. The permittee shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMs) for measuring the opacity of the exhaust gases, the rate of emission of sulfur dioxide, the rate of emission of nitrogen oxides, and for measuring either the oxygen or carbon dioxide levels in the flue gas. These CEMs shall be installed in the flue between the exit of the baghouse and the entrance to the stack. These CEMs shall be sited, installed, maintained, and operated as specified in CFR 40 Parts 60.45 and 60.4513. [Special Condition 8]
 - a) **Sulfur Dioxide:**
 - i. The permittee shall install, calibrate, maintain and operate continuous monitoring systems (CEMS) for measuring sulfur dioxide concentrations and either oxygen or carbon dioxide concentrations and shall record the output of the systems. [40 CFR 60.47b(a)]
 - ii. The permittee shall obtain emission data for at least seventy-five percent of the operating hours in at least twenty-two out of thirty successive boiler operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the administrator or the reference methods and procedures as described in paragraph (b) of this section. [40 CFR 60.47b(c)]
 - iii. The one-hour average sulfur dioxide emission rates measured by the CEMS is expressed in ng/J or pounds per million British thermal units heat input and is used to calculate the average emission rates under §60.42(b). Each one-hour average sulfur dioxide emission rate must be based on thirty or more minutes of steam generating unit operation. The hourly averages shall be calculated according to §60.13(h)(2). Hourly sulfur dioxide emission rates are not calculated if the affected facility is operated less than thirty minutes in a given clock hour and are not counted toward determination of a steam generating unit operating day. [40 CFR 60.47b(d)]
 - iv. The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS. [40 CFR 60.47b(e)]
 - b) **Particulate Matter and Nitrogen Oxides:**
 - i. The permittee shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system, except as provided in paragraphs (j) and (k) of this section. [40 CFR 60.48b(a)]
 - ii. The permittee shall install, calibrate, maintain, and operate a continuous monitoring system and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere. [40 CFR 60.48b(b)(1)]
 - iii. The continuous monitoring systems required for measuring NO_x emissions shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48(b)(c)]
 - iv. The one-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor shall be expressed in ng/J or pounds per million British thermal units heat input and shall be used to calculate the average emission rates under §60.44b. The one-hour averages shall be calculated using the data points required under §60.13(h)(2)
 - v. The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring system. [40 CFR 60.48b(e)]

- vi. When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of seventy-five percent of the operating hours in each steam generating unit operating day, in at least twenty-two out of thirty successive steam generating unit operating days. [40 CFR 60.48b(f)]
 - vii. Performance testing for compliance with the applicable PM emission limit shall be performed within one year of issuance of the Part 70 permit renewal, and every three years thereafter for the life of the Part 70 permit, unless that permit has been legally modified.
2. Continuous Opacity Monitoring System (COMS):
- a) The permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring and automated data acquisition system for measuring and recording the opacity (in percent opacity) in order to provide a reasonable assurance of the performance of the fabric filter. Previously installed and certified monitoring systems that conform to provisions of the Performance Specification for COMS meet the monitoring requirements.
 - b) The installation shall conduct a daily calibration check for zero and span adjustments (span value must be eighty, ninety, or one hundred percent) on the monitoring system as outlined by 40 CFR Part 60, Appendix B, Performance Specification 1.
 - c) The permittee shall conduct a quarterly neutral density audit and calibration error test on the COMS.
 - d) COMS neutral density and audit filters will be certified annually.
 - e) The performance requirements for the COMS shall be as specified in Table 2: MU Power Plant - CAM Monitoring Approach for Boiler 11 Baghouse.
 - f) An excursion and its associated averaging time for each emission unit shall be as specified in Table 2: MU Power Plant - CAM Monitoring Approach for Boiler 11 Baghouse.
 - g) MU Power Plant shall conduct monitoring continuously except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities, in accordance with §64.7(c). Although compliance with the PM emission limitation may be exempted in some circumstances during conditions such as startup, shutdown, and malfunction, MU Power Plant is required to operate and maintain the source in accordance with good air pollution control practices for minimizing emissions during such periods. This requires MU Power Plant to minimize periods of startup, shutdown or malfunction, and take corrective action to restore normal operation and prevent recurrence of the problem that led to the excursion except where the excursion was related to an excused startup, shutdown, or malfunction.

Table 2:

MU Power Plant - CAM Monitoring Approach for Boiler 11 Baghouse	
Particulate Matter (PM) Compliance Indicator	
Indicator	Opacity
Measurement Approach	Continuous Opacity Monitoring System (COMS)
Indicator Range	<p>Typical opacity levels during normal operation are 0-10%.</p> <p>An excursion is defined as a 1-hour block average opacity equal to or greater than 21%. Excursions trigger an inspection, corrective action, and a reporting requirement.</p> <p>Performance testing for compliance with the applicable PM emission limit shall be performed within 1 year of issuance of the Part 70 permit renewal, and every 3 years thereafter for the life of the Part 70 permit, unless that permit has been legally modified.</p>
Performance Criteria	
Data Representativeness	Boiler 11 discharges flue gas to the Boiler 11 Baghouse (i.e. an 8-compartment, pulse-jet cleaning baghouse with full bypass capability). The Boiler 11 COMS is located downstream of the baghouse, but before the North Stack. The COMS complies with the applicable version of 40 CFR Part 60, Appendix B, Performance Specification 1 (PS-1).
Verification of Operational Status	Not applicable since the selected monitoring approach utilizes existing COMS that were initially installed and evaluated per the applicable version of PS-1.
QA/QC Practices and Criteria	Perform a daily zero and calibration drift check, periodic cleaning of optical surfaces and other periodic QA/QC checks as specified in applicable version of PS-1.
Monitoring Frequency	Continuous [i.e., the COMS is to complete a minimum of one cycle (i.e., sampling, analyzing, and data recording) for each successive 10-second period].
Data Collection Procedure	
Averaging Period	The data acquisition system is to reduce the 10-second data points to 6-minute and 1-hour block averages.
Reporting	Summary information on the number, duration, and cause for any excursions and COMS downtime will be reported on a quarterly basis in accordance with applicable requirements of 10 CSR 10-6.220(4)(A).

- h) *Proper Maintenance.* At all times, the permittee shall maintain the monitoring system, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. [40 CFR 64.7(b)].
- i) *Continued Operation.* Except for monitoring system malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation at all times that Boiler 11 is operating. Unit operations are defined when any fuel is burned in the boiler. Periods when the fans are operated for maintenance or cleaning during unit outages are not considered unit operations. Data recorded during monitoring system malfunctions, associated repairs, and required quality assurance or control activities shall not be used for data averages and calculations, or fulfilling a minimum data availability requirement. 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 system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring

system failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR 64.7(c)]

- j) The permittee shall follow the following procedure in response to excursions or exceedances.
 - i. Upon detecting an excursion or exceedance, the permittee shall restore operation of the boiler(s) (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.
[40 CFR 64.7(d)(1)]
 - ii. 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.
[40 CFR Part 64.7(d)(2)]

Record Keeping:

1. The permittee shall maintain records of the following information for Boiler 11 on a daily basis:
 - a) The calendar date;
 - b) The average hourly opacity rate, sulfur dioxide emission rate, and nitrogen oxide emission rate in pounds per million British thermal units heat input;
 - c) The average sulfur dioxide emission rate and nitrogen oxide emission rate (in pounds per million British thermal units heat input) calculated at the end of the steam generating unit operating day from the average hourly sulfur dioxide and nitrogen oxide emission rates for the preceding 720 hours of steam generating unit operation;
 - d) Identification of the steam generating unit operating days when the average sulfur dioxide and/or nitrogen oxide emission rates are in excess of the permitted limits listed above under “Emissions Limitations,” with the reasons for such exceedances as well as a description of corrective actions taken.
 - e) Identification of the times when emissions data have been excluded for the calculation of average emission rates because of startup, shutdown, malfunction, or other reasons, and the reasons for excluding data at times other than startup, shutdown, or malfunction;
 - f) Identification of the times when the pollutant concentration exceeded the full span of the continuous monitoring system;
 - g) Description of any modifications to the continuous monitoring system which could affect the ability of the continuous monitoring system to comply with the performance specifications.
[Special Condition 9] [40 CFR 60.49b(g)(1) through (9) and 40 CFR 60.49b(j) and (k)(1) through (9)]
2. The permittee shall keep a record of continuous opacity monitoring system data.
3. The permittee shall record the daily monitoring system calibration check done on the continuous opacity monitoring system.

4. A record of any stack testing conducted on the emission unit, any subsequent testing will be maintained, and all other records required by this rule shall be made available immediately for inspection to the Department of Natural Resources personnel upon request.
5. All records shall be maintained by the applicant for a period of two years following the date of such record. [Special Condition 12] [40 CFR 60.49b(o)]

Reporting:

1. The permittee is required to submit a report for each semi-annual period during which excess emissions occur. No excess emissions report shall be submitted for any semi-annual reporting period during which Boiler 11 did not exceed either the opacity standard, the sulfur dioxide standard, or the nitrogen oxide standard. [Special Condition 10]
2. The permittee is required to submit, on a quarterly basis, monthly reports listing the amount of coal combusted in this boiler, the higher heating value of the coal, the sulfur content in percent by weight, the ash content in percent by weight, and the amount of limestone (or equivalent material) fed to the boiler to control the emission rate of sulfur dioxide. [Special Condition 11]
3. All reports shall be submitted to the Missouri Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102.
4. General Requirements:
The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after any exceedance of the limits established by this regulation, or any malfunction that causes a limit exceedance.
5. Opacity Reporting:
The permittee shall report quarterly on the opacity emissions. The quarterly report should give the day, the duration that the emission unit was out of the opacity limitations set forth in this rule, and a data summary of the exceedance (the data summary shall consist of the magnitude in actual percent opacity of all six (6)-minute averages of opacity greater than twenty percent (20%), except that one six (6)-minute average per hour of up to twenty-seven percent (27%) opacity). Additionally, the report shall provide a detailed explanation of why the plant was in exceedance (nature and cause) and corrective action taken by MU Power Plant to bring the emission unit back into the limitations set forth in this rule. If no excess emissions occurred within the quarter and the continuous opacity monitoring system has not been inoperative, repaired, or adjusted, that information shall be included in the report. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.

PERMIT CONDITION EU0070-002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations

40 CFR Part 63 Subpart DDDDD,

National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Note: On July 20, 2007, the United States Court of Appeals, District of Columbia Circuit ordered a full vacatur of 40 CFR Part 63 Subpart DDDDD. The vacatur has the same effect as if this MACT rule was never promulgated. This means there is no longer a September 13, 2007 compliance date for sources affected by this HAP source category. If and when the EPA promulgates an approved version of this MACT, emission unit EU0070 and will be re-evaluated for applicability.

EU0080 – Boiler #12			
Emission Unit	Description	Manufacturer/ Model #	2007 EIQ Reference #
EU0080	Boiler 12- Package Boiler; natural gas/fuel oil; MHDR=325 MMBtu/hr; Constructed 1994	Zurn, Ind	EP20

<p>PERMIT CONDITION EU0080-001 10 CSR 10-6.060 Construction Permits Required Construction Permit 0494-020 10 CSR 10-6.070 New Source Performance Standards 40 CFR Part 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units</p>
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Note: The particulate matter, sulfur dioxide, nitrogen oxide, and opacity limits in 40 CFR Part 60 Subpart Db apply to this emission unit. However, the emission limits in Construction Permit 0494-020 are more stringent; therefore, the limits from Subpart Db are not listed as permit conditions. The monitoring, record keeping, and reporting requirements from Subpart Db are included.

Emission Limitation:

1. The permittee shall not permit nor allow the emission rate of sulfur dioxide from Boiler 12 to exceed 0.051 pounds per million British thermal units when at maximum load (or 16.5 pounds per hour at lower load) on a thirty-day rolling average. [Special Condition 1]
2. The permittee shall not permit nor allow the emission rate of nitrogen oxides from Boiler 12 to exceed 0.145 pounds per million British thermal units when at maximum load (or 46.4 pounds per hour at lower loads) on a thirty-day rolling average [Special Condition 2]
3. The permittee shall not permit nor allow the emission rate of particulate matter from Boiler 12 to exceed 0.01 pounds per million British thermal units when at maximum load (or 3.25 pounds per hour at lower loads) on a thirty-day rolling average. [Special Condition 3]
4. The permittee shall not permit nor allow the emission from Boiler 12 into the surrounding air any gases which exhibit opacity greater than twenty percent, except for one six-minute period per hour of not more than twenty-seven percent opacity. [Special Condition 4]
5. These standards shall apply at all times, except during periods of startup, shutdown, or malfunction. [Special Conditions 1, 2, and 3]

Operational Limitation:

1. The permittee shall not combust any fuel other than natural gas or No. 2 distillate oil in Boiler 12. [Special Condition 5]
2. The sulfur content of the distillate oil combusted in Boiler 12 shall not exceed 0.05 percent by weight. [Special Condition 6]
3. The permittee shall not sell and supply in excess of one-third of the potential electric output capacity of the boiler and associated electrical power generation turbines to any utility power distribution system. [Special Condition 7]

Monitoring:

1. In lieu of monitoring for the emissions of SO_x, the permittee shall instead set up a tracking and recordkeeping procedure to ensure that the sulfur content of the distillate oil combusted in Boiler 12 will not exceed 0.05 percent by weight. The permittee will record the sulfur content of each shipment of distillate oil received for combustion in Boiler 12. All records shall be kept for a period of at least two years, and shall be made immediately available to Department of Natural Resources' personnel upon request. [Modified Special Condition 1]
2. The applicant shall install, calibrate, maintain and operate continuous emission monitoring systems (CEMs) for measuring the opacity of the exhaust gases, for measuring the rate of emission of NO_x, and for measuring either the oxygen or carbon dioxide levels in the flue gases from Boiler #12. These CEMs shall be sited, installed, maintained and operated as specified in CFR 40 Parts 60.45 and 60.45b. [Special Condition #8]

Particulate Matter and Nitrogen Oxides (Subpart Db):

1. The permittee shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system, except as provided in paragraphs (j) and (k) of this section. [40 CFR 60.48b(a)]
2. The permittee shall install, calibrate, maintain, and operate a continuous monitoring system and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere. [40 CFR 60.48b(b)(1)]
3. The continuous monitoring systems required for measuring NO_x emissions shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)]
4. The one-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor shall be expressed in ng/J or pounds per million British thermal units heat input and shall be used to calculate the average emission rates under §60.44b. The one-hour averages shall be calculated using the data points required under §60.13(h)(2)
5. The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring system. [40 CFR 60.48b(e)]
6. When nitrogen oxides emission data are not obtained because of continuous monitoring system malfunctions, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of seventy-five percent of the operating hours in each steam generating unit operating day, in at least twenty-two out of thirty successive steam generating unit operating days. [40 CFR 60.48b(f)]

Record Keeping:

1. The permittee shall maintain records of the following information for Boiler 12 on a daily basis:
 - a) The calendar date;
 - b) The average hourly opacity rate, and nitrogen oxide emission rate in pounds per million British thermal units heat input;
 - c) The average nitrogen oxide emission rate (in pounds per million British thermal units heat input) calculated at the end of the steam generating unit operating day from the average hourly nitrogen oxide emission rates for the preceding 720 hours of steam generating unit operation;

- d) Identification of the steam generating unit operating days when the average nitrogen oxide emission rates are in excess of the permitted limits listed above under “Emissions Limitations,” with the reasons for such exceedances as well as a description of corrective actions taken.
 - e) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of the corrective actions taken;
 - f) Identification of the times when emissions data have been excluded for the calculation of average emission rates because of startup, shutdown, malfunction, or other reasons, and the reasons for excluding data at times other than startup, shutdown, or malfunction;
 - g) Identification of the times when the pollutant concentration exceeded the full span of the continuous monitoring system;
 - h) Description of any modifications to the continuous monitoring system which could affect the ability of the continuous monitoring system to comply with the performance specifications.
 - i) The sulfur content of the distillate oil used in this boiler. Fuel receipts from the fuel supplier shall be kept in accordance with Subpart Db, Section 60.49(r). [Special Condition 9] [40 CFR 60.49b(g)(1) through (9) and 40 CFR 60.49b(j) and (k)(1) through (9)]
2. All records shall be maintained by the permittee for a period of two years following the date of such record. [Special Condition 11] [40 CFR 60.49b(o)]

Reporting:

1. The permittee shall be required to submit a report for each semi-annual period during which excess emissions occur. (The permittee may elect to submit these reports on a quarterly basis.) No excess emissions report shall be submitted for any semi-annual reporting period during which Boiler 12 did not exceed either the opacity standard, the sulfur dioxide standard, or the nitrogen oxide standard. [Special Condition 10]
2. All reports shall be submitted to the Missouri Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102.

PERMIT CONDITION EU0080-002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations

40 CFR Part 63 Subpart DDDDD,

National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Note: On July 20, 2007, the United States Court of Appeals, District of Columbia Circuit ordered a full vacatur of 40 CFR Part 63 Subpart DDDDD. The vacatur has the same effect as if this MACT rule was never promulgated. This means there is no longer a September 13, 2007 compliance date for sources affected by this HAP source category. If and when the EPA promulgates an approved version of this MACT, emission unit EU0080 will be re-evaluated for applicability.

EU0100 – Southwest Well Generator			
Emission Unit	Description	Manufacturer/Model #	2007 EIQ Reference #
EU0100	Southwest Well Backup Diesel Generator; MHDR = 9.9 MMBtu/hr; Constructed 1996	Caterpillar/3512	EP23

<p>PERMIT CONDITION EU0100-001 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds</p>
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Emission Limitation:

1. Emissions from any existing or new source operation shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide.
2. Stack gasses shall not contain more than thirty-five milligrams (35 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three-hour time period.
3. No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010, Ambient Air Quality Standards. [10 CSR 10-6.260(4) of August 30, 1996 version, 10 CSR 10-6.260(3)(B) of May 30, 2004 version & 10 CSR 10-6.010, Ambient Air Quality Standards]

Operational Limitation/Equipment Specifications:

The emission unit shall be limited to burning No. 2 fuel oil or equivalent having a sulfur content of 0.05 percent or less.

Monitoring/Recordkeeping:

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

Reporting:

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

PERMIT CONDITION EU0100-002

10 CSR 10-6.060 Construction Permits Required
Construction Permit 0296-007

Emission Limitation:

The total emission level of nitrogen oxides (NO_x) from this unit shall not exceed forty tons in any consecutive twelve-month period. [Special Condition 1]

Note: Construction Permit 1096-021 includes the East Well Pump in this forty-ton limit. See Permit Condition EU0110-001.

Monitoring/Record Keeping:

Monthly records shall be kept that are adequate to determine the total emissions of NO_x from this facility. Attachment E may be used for this purpose. These records shall also indicate the total quantity of NO_x emissions over the previous twelve-month period. The most recent sixty months of records shall be maintained on-site and shall be made immediately available to Department of Natural Resources' personnel upon request. [Special Condition 2]

Reporting:

The MU Power Plant shall report to the Air Pollution Control Program's Enforcement Section, no later than ten days after the end of each month, if the twelve-month cumulative total records show that the source exceeded the limitation of forty tons of NO_x per year. [Special Condition 3]

PERMIT CONDITION EU0100-003

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

Emission Limitations:

None.

Monitoring and Record Keeping:

None.

Reporting:

None.

EU0110 – East Well Engine Driven Pump			
Emission Unit	Description	Manufacturer/ Model #	2007 EIQ Reference #
EU0110	East Well Engine Driven Pump – 69 hp Natural Gas Reciprocating Engine; MHDR= 0.175 MMBtu/hr; Constructed 1996	Cummins	EP25

PERMIT CONDITION EU0110-001
 10 CSR 10-6.060 Construction Permits Required
 Construction Permit 1096-021

Emission Limitation:

The total emission level of nitrogen oxides (NO_x) from the proposed reciprocating engine, similar to and equal to a Cummins G5.9 Industrial Power Unit and the 1000 Kilowatt emergency generator from Construction Permit 0296-007 (EU0100) shall not exceed forty tons in any consecutive twelve-month period. [Special Condition 1]

Operational Limitation:

This emission unit shall be limited to burning pipeline natural gas.

Monitoring/Record Keeping:

1. Monthly records shall be kept that are adequate to determine the total emissions of NO_x from the above equipment. Attachment F may be used for this purpose. These records shall also indicate the total quantity of NO_x emissions over the previous twelve-month period for the above equipment. The most recent sixty months of records shall be maintained on-site and shall be made immediately available to Department of Natural Resources’ personnel upon request. [Special Condition 2]
2. Monthly records shall be kept that are adequate to determine the total number of hours the proposed reciprocating engine and the 1,000 Kilowatt emergency generator from Construction Permit 0296-007 (EU0100) are operating. To facilitate this record keeping, both the reciprocating engine and the 1,000 Kilowatt emergency generator shall be equipped with a five-digit running hour meter. [Special Condition 3]

Reporting:

The MU Power Plant shall report to the Air Pollution Control Program’s Enforcement Section, no later than ten days after the end of each month, if the twelve-month cumulative total records show that the source exceeded the limitation of forty tons of NO_x per year. [Special Condition 4]

EU0120 – North Well Generator			
Emission Unit	Description	Manufacturer/ Model #	2007 EIQ Reference #
EU0120	North Well Back-Up Diesel Generator; MHDR=5.33 MMBtu/hr; Constructed 1994	Caterpillar/ 3412	EP18

<p align="center">PERMIT CONDITION EU0120-001 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds</p>
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Emission Limitation:

1. Emissions from any existing or new source operation shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide.
2. Stack gasses shall not contain more than thirty-five milligrams (35 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three-hour time period.
3. No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010, Ambient Air Quality Standards. [10 CSR 10-6.260(4) of August 30, 1996 version, 10 CSR 10-6.260(3)(B) of May 30, 2004 version & 10 CSR 10-6.010, Ambient Air Quality Standards]

Operational Limitation/Equipment Specifications:

The emission unit shall be limited to burning No. 2 fuel oil or equivalent having a sulfur content of 0.05 percent or less.

Monitoring/Recordkeeping:

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

Reporting:

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

<p align="center">PERMIT CONDITION EU0120-002 10 CSR 10-6.060 Construction Permits Required Construction Permit 0294-018</p>

Operational Limitation:

This generator shall be operated for no more than 4,000 hours in any consecutive twelve (12)-month period. [Special Condition 1]

Monitoring:

The amount of time that this unit operates shall be determined by the hour meter fitted to the unit by the manufacturer. This hour meter shall be kept in serviceable condition at all times. [Special Condition 4]

Record Keeping:

1. Records which detail the number of hours that the generator was operated in each month shall be kept on-site and available for inspection by Department of Natural Resources’ personnel. [Special Condition 2]
2. This facility shall report to the Air Pollution Control Program no later than 10 (ten) days after the end of the month if the limitation is exceeded in the previous twelve-month period. Each exceedance shall be reported to Missouri Department of Natural Resources, Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102. [Special Condition 3]

PERMIT CONDITION EU0120-003
 40 CFR Part 63 Subpart ZZZZ
 National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal
 Combustion Engines

Emission Limitations:

None.

Monitoring and Record Keeping:

None.

Reporting:

None.

EU0130 and EU0140– Combustion Turbine and Duct Burner, Trains 1 and 2			
Emission Unit	Description	Manufacturer/ Model #	2007 EIQ Reference #
EU0130	12.7 MW Combustion Turbine Train 1 (MHDR = 133.5 MMBtu/hr) natural gas/fuel oil and Duct Burner (MHDR = 99.0 MMBtu/hr) natural gas; Constructed 2000	Solar/Titan 130S	EP26
EU0140	12.7 MW Combustion Turbine Train 2 (MHDR = 133.5 MMBtu/hr) natural gas/fuel oil and Duct Burner (MHDR = 99.0 MMBtu/hr) natural gas; Constructed 2000	Solar/Titan 130S	EP27

PERMIT CONDITION (EU0130 and EU0140)-001
 10 CSR 10-6.060 Construction Permits Required
 Construction Permit 072000-005A

Operational Limitation:

1. The MU Power Plant shall burn fuel oil in the turbines for a maximum of 2,000 hours each in every consecutive twelve-month period. [Special Condition 1]

2. The fuel oil combusted shall have a sulfur content of 0.05 percent by weight or less. [Special Condition 3]
3. The MU Power Plant is prohibited from sustained operation of either turbine at loads less than fifty percent when firing natural gas or fuel oil, except during initial startup and shutdown. [Special Condition 4]
4. The MU Power Plant shall maintain records during periods of startup and shutdown that include the amount of time required for each cycle and time that the turbines are operated at less than fifty percent load. [Special Condition 5]
5. Total time required for startup and shutdown times for each turbine shall be no more than eight (8) hours per occurrence.
6. At all times, including periods of startup, shutdown, and malfunction, MU Power Plant shall, to the extent practicable, maintain and operate this equipment in a manner consistent with good engineering practice for minimizing emissions. [Special Condition 7]
7. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Air Pollution Control Program (APCP) which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Special Condition 8]

Emission Limitations:

1. Except during periods of startup and shutdown, the MU Power Plant shall limit nitrogen oxide (NO_x) emissions from the SOLAR turbine generators while burning natural gas to twenty-five parts per million by volume (ppmv) (27.4 ppmv from turbine generators and duct burners combined), corrected to fifteen percent oxygen on a dry basis and expressed as a one (1) hour average. [Special Condition 9]
2. Except during periods of startup and shutdown, the MU Power Plant shall limit nitrogen oxide (NO_x) emissions from the SOLAR turbine generators and from the duct burners while burning fuel oil to 99.8 parts per million by volume corrected to fifteen percent oxygen on a dry basis and expressed as a one (1) hour average. [Special Condition 10]
3. Except during periods of startup and shutdown, the MU Power Plant shall limit carbon monoxide (CO) emissions from the SOLAR turbine generators to fifty parts per million by volume corrected to fifteen percent oxygen on a dry basis and expressed as a one (1) hour average. [Special Condition 11]
4. The MU Power Plant shall not emit formaldehyde emissions greater than 2.2 pounds per hour, for all loads, from the SOLAR turbine generators and from the duct burners. (During initial compliance testing it was determined formaldehyde levels were non-detectable, therefore no further testing for formaldehyde is warranted.) [Special Condition 13]

Performance Testing:

1. Beginning six (6) months after the initial performance testing, and semi-annually thereafter, the MU Power Plant shall conduct testing on each turbine and duct burner to verify that the CO emission limitations set in Special Conditions 11 and No. 12 are not exceeded. This testing may be conducted either in the same manner as the original performance test or using a portable test analyzer. Special Conditions 16, 20, and 21 will also apply to this ongoing emission testing. [Special Condition 17]
2. The CO emission tests required by Special Condition 17 shall be conducted in accordance with the test methods and procedures outlined in 40 CFR Part 60, Appendix A, Method 10, or another approved method by the Air Pollution Control Program. [Special Condition 18]

3. Alternative CO Test Method:

The MU Power Plant shall elect to replace the semi-annual CO emission tests (Special Condition 17) with the following: The MU Power Plant shall conduct a stack test every five years on each turbine and duct burner to verify that the CO emission limitation set in Special Conditions 11 and 12 are not exceeded. Special Conditions 19, 20 and 21 will also apply to this stack test. [Special Condition 27]

4. The date on which performance tests are conducted must be pre-arranged with the Air Pollution Control Program a minimum of thirty days prior to the proposed test. The Air Pollution Control Program may arrange a pretest meeting, if necessary, to assure that the test date is acceptable for an observer to be present. A completed Proposed Test Plan Form may serve the purpose of notification and must be approved by the Air Pollution Control Program prior to conducting the required emission testing. [Special Condition 19]
5. Two (2) copies of a written report of the performance test results shall be submitted to the director of the Air Pollution Control Program within thirty days of completion of any required testing. The report must include legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required EPA Method for at least one sample run. [Special Condition 20]
6. The test report must fully account for all operational and emission parameters addressed by these permit conditions as well as Subparts Dc and GG of the NSPS. [Special Condition 21]

Monitoring:

1. The MU Power Plant shall install, calibrate, maintain, and operate continuous monitoring systems, and record the output of the systems for measuring NO_x emissions discharged to the atmosphere. These systems shall be placed in an appropriate location on each turbine's flue gas exhaust such that accurate readings are possible. [Special Condition 22]
2. The MU Power Plant shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the systems, for measuring the oxygen (O₂) content of the flue gases at each location where NO_x emissions are monitored. The O₂ content of the flue gases may be determined by use of either an O₂ CEMS or a CO₂ CEMS. If the MU Power Plant elects to use a CO₂ CEMS, the conversion process in EPA Method 20 must be used to correct the NO_x concentrations to fifteen percent O₂. [Special Condition 23]
3. The CEMS required by Special Condition 22 shall be installed and operated in accordance with one of the following (MU Power Plant's option):
 - a) The guidelines in 40 CFR Part 75 for NO_x and diluent CEMS requirements; or
 - b) The guidelines in 40 CFR §60.13 in conjunction with 40 CFR Appendix F, *Quality Assurance Procedures*. [Special Condition 24]
4. The continuous emission monitoring systems required by Special Condition 23 shall be installed and operated according to the guidelines in 40 CFR §60.13, *Monitoring requirements*; in 40 CFR Appendix B, *Performance Specification, 3-Specification and test procedures of O₂ and CO₂ Continuous Emission Monitoring Systems in Stationary Sources*; and in 40 CFR Appendix F, *Quality Assurance Procedures*. [Special Condition 25]

Record Keeping:

The MU Power Plant shall maintain monthly records that show the monthly and most recent twelve-month cumulative hours of operation burning fuel oil for each combined-cycle turbine. Records from the most recent sixty months shall be maintained on site and shall be made available to Missouri Department of Natural Resources' personnel immediately upon request. [Special Condition 14]

Reporting:

The MU Power Plant shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of each month if any emission or operational limitation established in Construction Permit 072000-005 is exceeded.
[Special Condition 26]

PERMIT CONDITION (EU0130-EU00140)-002

10 CSR 10-6.070 New Source Performance Regulations
40 CFR Part 60 Subpart GG

Standards of Performance for Stationary Gas Turbines- Nitrogen Oxides

Emission Limitation:

Note: These combustion turbines (EU0130 and EU0140) are subject to the requirements of §60.332(a)(1) of CFR Part 60 Subpart GG. Since the NO_x emission standards of Subpart GG are less stringent than the NO_x emission limits of Construction Permit 072000-005, the NSPS §60.332(a)(1) standards are not listed as permit conditions to these units. Compliance with the NO_x limits in the construction permit will assure compliance with the §60.332(a)(1) standards.

PERMIT CONDITION (EU0130-EU00140)-003

10 CSR 10-6.070 New Source Performance Regulations
40 CFR Part 60 Subpart GG – Sulfur Dioxide (SO₂)

Emission Limitations:

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

Note: These combustion turbines (EU0130 and EU0140) are subject to the requirements of §60.333(b) of CFR Part 60 Subpart GG. Since the sulfur content standards of Subpart GG are less stringent than the limits of Construction Permit 072000-005, the NSPS §60.333(b) standards are not listed as permit conditions to these units. Compliance with the fuel sulfur content standards in the construction permit will assure compliance with the §60.333 (b) standards.

Monitoring:

1. The permittee shall monitor sulfur content of the fuel oil being fired in the turbine. The frequency of determination of these values shall be as follows: [40 CFR 60.334(b)]
If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the administrator before they can be used to comply with 40 CFR 60.334(b).
[40 CFR 60.334(b)(2)]
2. The owner or operator shall determine compliance with the more stringent sulfur content standard established in Construction Permit 072000-005 as follows: [40 CFR 60.335(d)], and as necessary
 - a) ASTM D 2880-96 shall be used to determine the sulfur content of liquid fuels.

Record Keeping:

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

Reporting:

1. For the purposes of reports under §60.7(c), periods of excess emissions that shall be reported are defined as follows: [§60.334(c)]
 - a) *Sulfur dioxide*: Any daily period during which the sulfur content of the fuel oil being fired in the gas turbine exceeds the permitted limit. [CFR 40 60.334(c)(2)]
 - b) *Emergency fuel*: Each period during which an exemption provided in 40 CFR 60.332(k) is in effect shall be included in the report required in 40 CFR 60.7(c). For each period, the type, reasons, and duration of the firing of the emergency fuel shall be reported. [40 CFR 60.334(c)(4)]
2. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the custom fuel schedule record keeping indicates and exceedance with the applicable standard pursuant to the regulation.

PERMIT CONDITION (EU0130-EU00140)-004

10 CSR 10-6.070 New Source Performance Regulations

40 CFR Part 60 Subpart Dc

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

Emission Limitations:

None.

Operational Limitation:

The permittee shall limit the fuel for the duct burners to natural gas.

Monitoring and Record Keeping:

Except as provided under paragraphs (g)(2) and (g)(3) of §60.48c, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

Reporting:

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

EU0150 – Backup Diesel Generator			
Emission Unit	Description	Manufacturer/ Model #	2007 EIQ Reference #
EU0150	2.0 MW Backup Diesel Generator; MHDR=20.15 MMBtu/hr; Constructed 2000	Caterpillar/ 3516B	EP29

PERMIT CONDITION EU0150-001
 10 CSR 10-6.060 Construction Permits Required
 Construction Permit 072000-005A

Operational Limitation:

1. The MU Power Plant shall limit the back-up generator to 750 hours of operation in every consecutive twelve-month period. [Special Condition 2]
2. Fuel oil combusted in this equipment shall have a sulfur content of 0.05 percent by weight or less. [Special Condition 3.]

Emission Limitations:

The MU Power Plant shall limit NOx and CO emissions from the nominal 2 (two) Megawatt back-up generator to the following levels:

1. 52.5 pounds of NOx per hour;
2. 5.1 pounds of CO per hour. [Special Condition 12]

Record Keeping:

The MU Power Plant shall maintain monthly records that show the monthly and most recent twelve-month cumulative hours of operation of the back-up generator. Records from the most recent sixty months shall be maintained on site and shall be made available to Missouri Department of Natural Resources’ personnel immediately upon request. [Special Condition 15]

Reporting:

The MU Power Plant shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of each month if any emission or operational limitation established in Construction Permit 072000-005 is exceeded. [Special Condition 26]

PERMIT CONDITION EU0150-002
 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

Emission Limitation:

1. Emissions from any existing or new source operation shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide.
2. Stack gasses shall not contain more than thirty-five milligrams (35 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three-hour time period.
3. No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010, Ambient Air Quality Standards. [10 CSR 10-6.260(4) of August 30, 1996 version, 10 CSR 10-6.260(3)(B) of May 30, 2004 version & 10 CSR 10-6.010, Ambient Air Quality Standards]

Operational Limitation/Equipment Specifications:

The emission unit shall be limited to burning No. 2 fuel oil or equivalent.

Monitoring/Recordkeeping:

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

Reporting:

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

PERMIT CONDITION EU0150-003

40 CFR Part 63 Subpart ZZZZ

National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Emission Limitations:

None.

Monitoring and Record Keeping:

None.

Reporting:

None.

EU0160 & EU0165 – East and West Ash Silo Unloading

Emission Unit	Description	Manufacturer/ Model #	2007 EIQ Reference #
EU0160 EU0165	East and West Ash Silo Unloading- Truck loading from silos; MHDR=70 tons/hr; Constructed 1980 (East) and 1987 (West); Control Device: Wet Ash Conditioner: 96.6% PM10 (East) and Dust recovery system: 55% PM10 control (West)	East – Detroit Stoker, West – Hydro-Ash	EP06/EP13

PERMIT CONDITION (EU0160 and EU0165)-001

10 CSR 10-6.220 Restriction of Emissions of Visible Air Contaminant

Emission Limitation:

1. No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **new** source any visible emissions with opacity greater than twenty percent.

2. Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty minutes air contaminants with an opacity up to sixty percent.

Monitoring:

1. The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
2. The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
3. If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Record Keeping:

1. The permittee shall maintain records of all observation results (see Attachment A1 or A2), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
2. The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
3. The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
4. Attachments A1 or A2, B and C, contain logs including these record keeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
5. These records shall be made available immediately for inspection to Department of Natural Resources' personnel upon request.
6. 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, Missouri 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
2. Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

PERMIT CONDITION (EU0160 and EU0165)-002

10 CSR 10-6.400 Restriction of Emissions of Particulate Matter From Industrial Processes

Emission Limitation:

1. Particulate matter shall not be emitted from EU0170 in excess of 47.77 pounds per hour
2. These emission rates were calculated using one of the following equations:
For process weight rates greater than 60,000 lb/hr:
$$E = 55.0(P)^{0.11} - 40$$
Where:
E = rate of emission in lb/hr
P = process weight rate in tons/hr = 70
3. The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grains per standard cubic foot..

Monitoring/Record Keeping:

1. The permittee shall retain the potential to emit calculations in Attachment D which demonstrate that the above emission limitations will not be exceeded.
2. The calculation shall be made available immediately for inspection to Department of Natural Resources' personnel upon request.
3. All records shall be kept for a period of five years.

Reporting:

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

IV. Core Permit Requirements

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

10 CSR 10-6.045 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:
 - (1) 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;
 - (2) 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;
 - (3) The burning shall take place only between the daytime hours of 10:00 a.m. and 3:30 p.m.; and
 - (4) 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

- iv) 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) University of Missouri-Columbia(MU) Power Plant 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 University of Missouri-Columbia (MU) Power Plant 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 Record Keeping. 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
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| <ul style="list-style-type: none">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:<ul style="list-style-type: none">a) Name and location of installation;b) Name and telephone number of person responsible for the installation;c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.d) Identity of the equipment causing the excess emissions;e) Time and duration of the period of excess emissions;f) Cause of the excess emissions;g) Air pollutants involved; |
|--|

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

10 CSR 10-6.060 Construction Permits Required

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

10 CSR 10-6.065 Operating Permits

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

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

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

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

- 1) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.

- 2) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo 643.079 to satisfy the requirements of the Federal Clean Air Act, Title V.
- 3) The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the director.

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

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

10 CSR 10-6.150 Circumvention

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

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

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

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

- 1) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.

- 2) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
- 3) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-3.090 Restriction of Emission of Odors

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than fifteen minutes apart within the period of one hour.

This requirement is not federally enforceable.

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f) Owners/operators of appliances normally containing fifty or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.

- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part 82*

10 CSR 10-6.280 Compliance Monitoring Usage
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- 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:
- Monitoring methods outlined in 40 CFR Part 64;
 - Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - 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:
- Monitoring methods outlined in 40 CFR Part 64;
 - A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - 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:
- Applicable monitoring or testing methods, cited in:
 - 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - 10 CSR 10-6.040, "Reference Methods";
 - 10 CSR 10-6.070, "New Source Performance Standards";
 - 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
 - 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 Record Keeping and Reporting Requirements

- 1) Record Keeping
 - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
 - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
- 2) Reporting
 - a) All reports shall be submitted to the Air Pollution Control Program's Enforcement Section, P. O. Box 176, Jefferson City, Missouri 65102.
 - b) The permittee shall submit a report of all required monitoring by:
 - i) October 1st for monitoring which covers the January through June time period, and
 - ii) April 1st for monitoring which covers the July through December time period.
 - iii) Exception. Monitoring requirements which require reporting more frequently than semi-annually shall report no later than thirty days after the end of the calendar quarter in which the measurements were taken.
 - c) Each report shall identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
 - d) Submit supplemental reports as required or as needed. 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.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 June 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, as well as the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
 - a) The identification of each term or condition of the permit that is the basis of the certification;
 - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;

- c) Whether compliance was continuous or intermittent;
- d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
- e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

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

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

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

- 1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A. shall constitute an affirmative defense to an enforcement action brought for 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, Missouri 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1) Section 502(b)(10) changes. Changes that, under Section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), record keeping, reporting or compliance requirements of the permit.
 - a) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the Air Pollution Control Program shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the Air Pollution Control Program as above at least seven days before the change is to be made. If less than seven days notice is provided because of a need to respond more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the Air Pollution Control Program as soon as possible after learning of the need to make the change.
 - b) The permit shield shall not apply to these changes.

10 CSR 10-6.065(6)(C)9 Off-Permit Changes
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- 1) Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
 - b) The permittee must provide written notice of the change to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
 - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and

- d) The permit shield shall not apply to these changes.

10 CSR 10-6.020(2)(R)12 Responsible Official

The application utilized in the preparation of this permit was signed by Paul R. Hoemann, Director, Energy Management. 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 thirty days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

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

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (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) The Missouri Department of Natural Resources or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 3) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
 - a) The permit has a remaining term of less than three years;
 - b) The effective date of the requirement is later than the date on which the permit is due to expire;or
- c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit; or
- 5) 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

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

VI. Attachments

Attachments follow.

Attachment C

Method 9 Opacity Emission Observations	
Company	Observer
Location	Observer Certification Date
Date	Emission Unit
Time	Control Device

Hour	Min.	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							

SUMMARY OF AVERAGE OPACITY				
Set Number	Time		Opacity	
	Start	End	Sum	Average

Readings ranged from _____ to _____ % opacity.

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

ATTACHMENT D
10 CSR 10-6.400 Compliance Demonstration

This attachment may be used to demonstrate compliance with the limitations of 10 CSR 10-6.400 *Restriction of Emission of Particulate Matter From Industrial Processes* for the equipment listed.

PM Emission limit:

$$E = 4.1(P)^{0.67} \quad (P \leq 30)$$

$$E = 55(P)^{0.11} - 40 \quad (P > 30)$$

P is process weight rate in tons/hour and E is emission rate limit in lb/hour

Potential PM Emission Rate:

$$\text{Emission Rate (lb/hr)} = \text{Process Weight Rate (ton/hr)} * \text{PM Emission Factor (lb/ton)}$$

Emission Point #	Associated Equipment	Process Weight Rate (ton/hr)	PM Emission Factor (lb/ton)	Emission Factor Reference	Potential Uncontrolled Emission Rate (lb/hr)	Emission Rate Limit (lb/hr)
EP32	EU0010 – Hydrated Lime Storage Silo	25.0	0.46	FIRE SCC 30501107	11.5	35.43
EP05/EP 12	EU0020 and EU0025 – East and West Ash Silo Conveying Air Vent	5.0	0.46	FIRE SCC 30501107	2.3	12.05
EP06/EP 13	EU0170 - East and West Ash Silo Unloading	70.0	.15	FIRE SCC 30501110	10.5	47.77

The calculations demonstrate that these units are in compliance with the PM limits with or without an operating control device. Therefore, no monitoring of the control devices will be required.

ATTACHMENT G

April 2, 1992 Settlement Agreement

SETTLEMENT AGREEMENT

This Settlement Agreement is entered into on this 2nd day of April, 1992, by the MISSOURI DEPARTMENT OF NATURAL RESOURCES ("MDNR"), the ATTORNEY GENERAL OF MISSOURI ("Attorney General") and the CURATORS OF THE UNIVERSITY OF MISSOURI ("MU") on behalf of the University of Missouri - Columbia ("MU").

WHEREAS, MU owns and operates the University of Missouri-Columbia Power Plant ("Power Plant") which is located at 415 South Fifth Street, Columbia, Missouri on the University of Missouri-Columbia campus. The Power Plant is used for the co-generation of steam and electricity for MU's Columbia campus.

WHEREAS, MDNR has alleged that the south stack of the Power Plant has produced air contaminants in excess of the opacity standards set forth in 10 CSR 10-3.080 which addresses restrictions of emissions of visible air contaminants and has issued Notices of Violation to MU for such alleged violations.

WHEREAS, MU has demonstrated to the satisfaction of MDNR that boiler number 10 at the MU Power Plant was under construction prior to February 26, 1971.

WHEREAS, the MDNR, MU, and the Missouri Attorney General desire to resolve amicably the disputes or claims which could be made against MU arising from the Notices of Violation issued to MU by MDNR on July 23, 1990; August 10, 1990; September 11, 1990; October 11, 1990; October 26, 1990; and December 11, 1990, without MU admitting the validity or accuracy of any such claims.

NOW THEREFORE, it is hereby agreed that MU will in resolution of such disputes or claims and in order to demonstrate at

tainment of opacity standards contained in the Air Conservation Law and regulations, undertake the following emission control projects and requirements:

1. MU shall continue to inject fly ash and/or lime into the duct work prior to the bag house for boiler 10 at such a rate as to insure continued compliance with the opacity standard in 10 CSR 10-3.080.

2. MU will undertake a study which will investigate the use of fly ash and/or lime injection as a pollution control strategy. This study will be structured to provide information to other Missouri industries seeking to solve similar problems. This study shall include scientific data, mechanical details on the fly ash and/or lime handling injection system, and economic benefits realized from implementing this system using Missouri coal.

3. The study plan for the study described in paragraph 2 is attached hereto as Exhibit A, and MDNR hereby approves same.

4. The report of the results of the study described in paragraph 2 shall be similar in format and quality as those which are published in recognized scientific journals.

5. The study shall be completed one year from the last dated signature on this Agreement.

6. MU shall make this study available to all interested parties in the State of Missouri.

7. MU will draw down and burn the reserve coal storage pile located east of the Hearnese Multipurpose Building. Once

gone, this storage pile will not be re-established without prior approval from MDNR.

8. MU will pay a stipulated penalty of \$2,000.00 per month for each month after the final completion date of one year from the last dated signature on this Agreement that MU fails to complete the studies specified in paragraph two (2).

9. The MDNR and Attorney General's Office of Missouri agree not to bring or cause to be brought any civil action against MU for injunctive relief or for penalties arising from the allegations of the Notices of Violation issued to MU by MDNR on July 23, 1990; August 30, 1990; September 11, 1990; October 11, 1990; October 26, 1990; and December 11, 1990 or arising from any other alleged emissions violations at the Power Plant which occurred prior to April 1, 1992.

10. Nothing in this agreement shall be construed to preclude MDNR or the State of Missouri from proceeding against MU for any other violation of law, past or future, which is not specified in paragraph nine (9). Nothing in this Agreement shall be construed to preclude MDNR or the State of Missouri from proceeding against MU for violations which may occur subsequent to the effective date of this Settlement Agreement.

11. MDNR shall continue to monitor the plant for violations of the Missouri Air Conservation Law and regulations promulgated pursuant thereto.

12. Nothing in this Settlement Agreement shall be construed to preclude MU from continuing to evaluate the experimental process of fly ash and/or lime injection system or to pre-

clude MU from modifying such system after its completion or utilizing other opacity control technology provided that the Power Plant remains in compliance with 10 CSR 10-3.090 and all other applicable laws.

13. Nothing in this Settlement Agreement shall require MU to continue the fly ash and/or lime injection during that time in which the Power Plant is burning any fuel other than the "high sulfur" coal MU is currently utilizing. MU understands that any fuel used must not lead to violations of any applicable laws.

IN WITNESS WHEREOF, the parties hereto have executed this Settlement Agreement on the day and year first hereinabove set out.

THE CURATORS OF THE UNIVERSITY OF MISSOURI

BY: *Michael Grochocny* DATE: 4-1-92

TITLE: VICE CHANCELLOR FOR
ADMINISTRATIVE SERVICES

Phillip Hoskins DATE: 4-1-92

Phillip Hoskins
Legal Counsel
University of Missouri Columbia

WILLIAM L. WEBSTER
Attorney General

BY: *Suzanne Modlin* DATE: 4-2-92

Suzanne Modlin
Assistant Attorney General

MISSOURI DEPARTMENT OF NATURAL RESOURCES

BY: *G. Tracy Mehan III* DATE: 4/2/92

G. Tracy Mehan III
Director

STATEMENT OF BASIS

Permit Reference Documents

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

- 1) Part 70 Operating Permit Application, received January 13, 2004;
- 2) 2007 Emissions Inventory Questionnaire, received May 25, 2008; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.
- 4) Construction Permit 0886-004, Issued August 18, 1986
- 5) Settlement Agreement dated April 2, 1992
- 6) Construction Permit 0294-018, Issued January 28, 1994
- 7) Construction Permit 0494-020, Issued April 27, 1994
- 8) Amendment to Construction Permit 0494-020, Issued May 27, 1994
- 9) Construction Permit 0296-007, Issued January 31, 1996
- 10) Construction Permit 1096-021, Issued October 15, 1996
- 11) Construction Permit 072000-005, Issued June 19, 2000
- 12) Amendment to Construction Permit 02700-005, Issued September 26, 2000
- 13) Compliance Assurance Monitoring (CAM) Plan

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

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

None.

Other Air Regulations Determined Not to Apply to the Operating Permit

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

10 CSR 10-6.100, *Alternate Emission Limits*

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

Construction Permit Revisions

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

Construction Permit 0886-004 and Construction Permit 0494-020:

Special Conditions 1, 2, and 3 of these construction permits require the permittee to conduct performance testing in accordance with EPA test method 5 (for particulate matter), method 6 (for sulfur dioxide) and method 7 (for nitrogen oxides). The permit also states that if the performance testing shows that the allowable emission rates are exceeded, the permittee shall cease operation of Boiler 11

(from Construction Permit 0886-004) and Boiler 12 (from Construction Permit 0494-020) until the cause of the exceedance is found and corrected. The permit conditions requiring this testing were not included in this operating permit because they have already been fulfilled. Emissions were found to be acceptable therefore, no further testing due to construction permit is necessary.

Construction Permit 0494-020

Rather than monitor and maintain records of the sulfur dioxide emissions of this unit the permittee shall instead be required to set up a tracking and recordkeeping procedure to ensure that the sulfur content of the distillate oil combusted in Boiler 12 will not exceed 0.05 percent by weight.

Construction Permit 072000-005 and Amendment:

Special Condition 6 required the permittee to determine the total time required for start-up and shutdown for each turbine and submit to the director for approval. The permittee has completed this requirement, therefore it is not included in this operating permit, rather the determined time of eight hours was included as Operational Limitation 5 in Permit Condition (EU0130 and EU0140)-001.

New Source Performance Standards (NSPS) Applicability

40 CFR Part 60 Subpart Kb, *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*, does not apply to the two (2) No. 2 fuel oil storage tanks. The tanks were constructed in 1996; however, the capacity for each tank is 19,500 gallons. This rule applies to tanks storing VOCs with a capacity of 19,800 gallons capacity. Therefore the storage tanks were listed as emission units without limitations.

40 CFR Part 60 Subpart GG, *Standards of Performance for Stationary Gas Turbines*, applies to Emission Units EU0130 and EU0140. §60.333(b) and limits the sulfur content in the fuel to less than 0.8 percent by weight. This limit was not included in the operating permit because Construction Permit 072000-005, Special Condition 3 requires a more stringent limit of 0.05 percent sulfur content by weight.

40 CFR Part 60 Subpart Da, *Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978*, applies to electric utility steam generating units greater than 250 million British thermal units per hour heat input. Although Boilers 11 and 12 have a heat input capacity greater than 250 million British thermal units per hour, the MU Power Plant is not considered an Electric Utility. The MU Power Plant is a cogeneration facility generating steam for campus and utilizing excess steam for electricity strictly for the campus. Less than thirty-three percent of the electricity generated is sold to the grid. Therefore, this subpart does not apply to Boilers 11 and 12.

40 CFR Part 60 Subpart Db, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, applies to units EU0070 (Boiler 11) and EU0080 (Boiler 12). This Subpart applies to steam generating units that commence construction, modification, or reconstruction after June 19, 1984, and that have a heat input capacity greater than 29 Megawatts (100 million British thermal units per hour). The sulfur dioxide monitoring required by this subpart is not applicable to boiler 12 because it burns very low sulfur fuel (fuel oil with a sulfur content less than 0.05 percent).

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

This rule is not applicable to emission units EU0130 and EU0140 Duct Burners. The Duct Burners' design heat input (99 million British thermal units per) are less than 100 million British thermal units per hour each. [40 CFR Part 60 Subpart Db – 60.40b(a)] No emission limits are applicable, however the permittee must maintain records of the amount of fuel used.

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

This Subpart Does not apply to EU00130 and EU00140 Duct Burners for the heat recovery steam generators, because they burn natural gas only.

Maximum Available Control Technology (MACT) Applicability

- 1) 40 CFR Part 63 Subpart DDDDD, *National Emission Standards For Hazardous Air Pollutants For Industrial, Commercial, And Institutional Boilers And Process Heaters*
Boilers 7, 8, 9, 10, 11 and 12 (Emission Units EU0030 through EU0080) were subject to this regulation. However, as noted in Permit Conditions (EU0030 through EU0060)-002, EU0070-002 and EU0080-002, the United States Court of Appeals, District of Columbia Circuit ordered a full vacatur of 40 CFR Part 63 Subpart DDDDD. The vacatur has the same effect as if this MACT rule was never promulgated. This means there is no longer a September 13, 2007 compliance date for sources affected by this HAP source category. If and when the EPA promulgates an approved version of this MACT, these six emission units will be re-evaluated for applicability.
- 2) 40 CFR Part 63 Subpart ZZZZ, *National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*
This rule applies to EU0100, EU0120, and EU0150. Since the three back-up generators are diesel fuel burning generators, there are no operational or emissions limitations, or reporting/monitoring requirements. Section 63.6590(b)(3): "A stationary RICE which is an... existing compression ignition (CI) stationary RICE... does not have to meet the requirements of this subpart and of subpart S of this part. No initial notification is necessary."

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

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

Compliance Assurance Monitoring (CAM) Applicability

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

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

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

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

Boilers 7 through 11 (EU0030 through EU0080) meet the applicability criteria for 40 CFR Part 64, *Compliance Assurance Monitoring (CAM)*, because these units each have the uncontrolled potential to emit particulate matter above the major source threshold levels (as defined by Part 70) and utilize control devices (as defined by 40 CFR §64.1) to comply with 10 CSR 10-3.060.

If/when EPA promulgates 40 CFR Part 63 Subpart DDDDD, which was vacated, these boilers will become subject to the MACT rule, which will then supersede the requirements of CAM.

The permittee submitted a Compliance Assurance Monitoring plan with the renewal permit application, on January 13, 2004. This accepted Compliance Assurance Monitoring plan has been incorporated into Permit Conditions (EU0030-through EU0060)-003 and EU0070-001.

Other Regulatory Determinations

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

Emission Limit for Existing Indirect Heating (installed by February 15, 1979):

$$E = 0.90Q^{(-0.174)} = 0.9(1236.5)^{(-0.174)} = 0.26 \text{ lb/mmBtu}$$

Where Q = the installation heat input in millions of Btu per hour.

As stated in 10 CSR 10-3.060(3)(C)... “For the purposes of this rule, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack. The heat input value used shall be the equipment manufacturer’s or designer’s guaranteed maximum input...”

The following equipment was used to obtain the total heat input (Q) for the above equation:

Equipment	Year Installed	Heat Input (mmBtu/hr)
Boiler 7	1956	104.0
Boiler 8	1956	104.0
Boiler 9	1966	175.0
Boiler 10	1970	269.0
Boiler 11	1986	259.5
Boiler 12	1994	325.0
TOTAL		1236.5

Boilers 7, 8, 9 and 10 are subject to the particulate emission limits of 10 CSR 10-3.060.

Boiler 11 is not subject to 10 CSR 10-3.060 because it is subject to the particulate matter emission limits established in 40 CFR Part 60 Subpart Db. However, the particulate matter emission limit established by Construction Permit 0886-004 is more stringent than Subpart Db, therefore it is included in Permit Condition EU0070-001.

Boiler 12 is not subject to 10 CSR 10-3.060 because it is subject to the particulate matter emission limits established in 40 CFR Part 60 Subpart Db and Construction Permit 0494-020. The limits established in the construction permit are more stringent than the limits in Subpart Db, so they are included in Permit Condition EU0080-001. Compliance with the construction permit limit will ensure compliance with all other applicable limits.

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

This rule does not apply to EU0070 Boiler 11 and EU0080 Boiler 12 because they are subject to the opacity limits established by 40 CFR Part 60 Subpart Db.

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

This rule does not apply to EU0110 – East Well Engine Driven Pump because this unit is limited to burning exclusively natural gas.

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:

Jill Wade, P.E.
Environmental Engineer