

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: **OP2007-005**
Expiration Date: JAN 30 2012
Installation ID: 021-0004
Project Number: 0520-0004-020

Installation Name and Address

Lake Road Plant
Lower Lake Road
P.O. Box 998
St. Joseph, MO 64502-0998
Buchanan County

Parent Company's Name and Address

Aquila, Inc.
P.O. Box 11739
Kansas City, MO 64138

Installation Description:

Aquila operates an electric power and steam generation installation located in St. Joseph. This installation consists of six boilers, one gas turbine stack and waste heat boiler, and two jet engines (combustion turbines). The company's principal products are electric power and steam generation.

JAN 31 2007

Effective Date

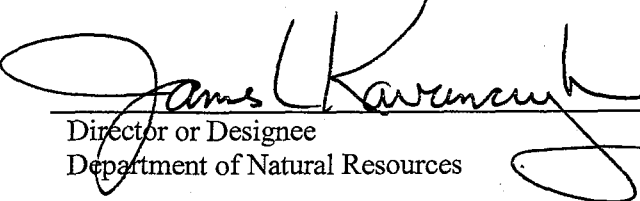

Director or Designee
Department of Natural Resources

Table of Contents

I.	INSTALLATION DESCRIPTION AND EQUIPMENT LISTING.....	5
	INSTALLATION DESCRIPTION	5
	EMISSION UNITS WITH LIMITATIONS	5
	EMISSION UNITS WITHOUT LIMITATIONS	5
	DOCUMENTS INCORPORATED BY REFERENCE	6
II.	PLANT WIDE EMISSION LIMITATIONS	7
	THERE ARE NO PLANT WIDE EMISSION LIMITATIONS FOR THIS INSTALLATION.....	7
III.	EMISSION UNIT SPECIFIC EMISSION LIMITATIONS.....	8
	EU0010 – BOILER 1	8
	PERMIT CONDITION EU0010-001.....	8
	10 CSR 10-2.040 Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating.....	8
	PERMIT CONDITION EU0010-002.....	8
	10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds,.....	8
	May 25, 2001 Consent Agreement.....	8
	PERMIT CONDITION EU0010-003.....	10
	10 CSR 10-6.220 Restriction of Emissions of Visible Air Contaminants.....	10
	EU0020 – BOILER 2	11
	PERMIT CONDITION EU0020-001.....	11
	10 CSR 10-2.040 Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating.....	11
	PERMIT CONDITION EU0020-002.....	11
	10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds,.....	11
	May 25, 2001 Consent Agreement.....	11
	PERMIT CONDITION EU0020-003.....	13
	10 CSR 10-6.220 Restriction of Emissions of Visible Air Contaminants.....	13
	EU0030 – BOILER 3	14
	PERMIT CONDITION EU0030-001.....	14
	10 CSR 10-2.040 Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating.....	14
	PERMIT CONDITION EU0030-002.....	14
	10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds,.....	14
	May 25, 2001 Consent Agreement.....	14
	EU0040 – BOILER 4	15
	PERMIT CONDITION EU0040-001.....	16
	10 CSR 10-2.040 Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating.....	16
	PERMIT CONDITION EU0040-002.....	16
	10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds,.....	16
	May 25, 2001 Consent Agreement.....	16
	PERMIT CONDITION EU0040-003.....	17
	10 CSR 10-6.220 Restriction of Emissions of Visible Air Contaminants.....	17
	EU0050 – BOILER 5	18
	PERMIT CONDITION EU0050-001.....	18
	10-2.040 Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating.....	18
	PERMIT CONDITION EU0050-002.....	20
	10 CSR 10-6.220 Restriction of Emissions of Visible Air Contaminants.....	20
	PERMIT CONDITION EU0050-003.....	21

10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds,.....	21
May 25, 2001 Consent Agreement.....	21
PERMIT CONDITION EU0050-004.....	22
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations.....	22
40 CFR Part 63 Subpart DDDDD National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters.....	22
40 CFR Part 63 Subpart A General Provisions.....	22
EU0060 – BOILER 6.....	39
PERMIT CONDITION EU0060-001.....	40
10 CSR 10-2.040 Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating.....	40
PERMIT CONDITION EU0060-002.....	41
10 CSR 10-6.220 Restriction of Emissions of Visible Air Contaminants.....	41
Permit Condition EU0060-003.....	42
10 CSR 10-6.260.....	42
Permit Condition EU0060-004.....	44
Permit Condition EU0060-005.....	44
10 CSR 10-6.350.....	44
EU0070 – GAS TURBINE 5 (COMBUSTION TURBINE 5).....	47
PERMIT CONDITION EU0070-001.....	47
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds,.....	47
May 25, 2001 Consent Agreement.....	47
Permit Condition EU0070-002.....	49
10 CSR 10-6.350.....	49
EU0080 AND EU0090 – No. 6 JET ENGINE (COMBUSTION TURBINE 6) AND No. 7 JET ENGINE (COMBUSTION TURBINE 7).....	49
Permit Condition EU0080-001 and EU0090-001.....	49
10 CSR 10-6.060.....	49
PERMIT CONDITION EU0080-2 and EU0090-002.....	50
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds,.....	50
May 25, 2001 Consent Agreement.....	50
EU0260A, EU0260B, EU0270A and EU0270B.....	51
EU0260A.....	51
EU0260B.....	51
EU0270A.....	51
EU0270B.....	52
Permit Conditions EU0260A-001, EU0260B-001, EU0270A-001 and EU0270B-001.....	52
10 CSR 10-6.060.....	52
10 CSR 10-6.220.....	52
Construction Permit # 0196-011.....	52
IV. CORE PERMIT REQUIREMENTS.....	54
V. GENERAL PERMIT REQUIREMENTS.....	59
VI. ATTACHMENTS.....	65
ATTACHMENT A.....	66
ATTACHMENT B1.....	67
10 CSR 10-6.220 OPACITY EMISSION OBSERVATION LOG.....	67
ATTACHMENT B2.....	68
10 CSR 10-6.220 COMPLIANCE DEMONSTRATION.....	68
OPACITY EMISSION OBSERVATION.....	68
ATTACHMENT B3.....	69
10 CSR 10-6.220 OPACITY SUMMARY REPORT.....	69
ATTACHMENT B4.....	70

10 CSR 10-6.220 EQUIPMENT LOG	70
ATTACHMENT C	71
MAINTENANCE/INSPECTION ACTIVITIES SCHEDULE AND LOG	71
ATTACHMENT D	72
ATTACHMENT E	76
ATTACHMENT F	80
TABLE 2 TO SUBPART DDDDD OF PART 63	80
OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH PARTICULATE MATTER EMISSION LIMITS.....	80
ATTACHMENT G	81
TABLE 3 TO SUBPART DDDDD OF PART 63	81
OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH MERCURY EMISSION LIMITS AND BOILERS AND PROCESS HEATERS THAT CHOOSE TO COMPLY W/THE ALTERNATIVE TOTAL SELECTED METALS EMISSION LIMITS...	81
ATTACHMENT H	82
TABLE 4 TO SUBPART DDDDD OF PART 63	82
OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH HYDROGEN CHLORIDE EMISSION LIMITS	82
ATTACHMENT I	83
TABLE 5 TO SUBPART DDDDD OF PART 63	83
PERFORMANCE TESTING REQUIREMENTS	83
ATTACHMENT J	85
TABLE 6 TO SUBPART DDDDD OF PART 63	85
FUEL ANALYSIS REQUIREMENTS	85
ATTACHMENT K	86
TABLE 7 TO SUBPART DDDDD OF PART 63	86
ESTABLISHING OPERATING LIMITS	86
ATTACHMENT L	87
TABLE 8 TO SUBPART DDDDD OF PART 63	87
DEMONSTRATING CONTINUOUS COMPLIANCE	87
ATTACHMENT M	88

D) Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Aquila operates an electric power and steam generation installation located in St. Joseph. This installation consists of six boilers, one gas turbine stack and waste heat boiler, and two jet engines (combustion turbines). The company's principal products are electric power and steam generation.

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM-10)	Sulfur Oxides (SO _x)	Nitrogen Oxides (NO _x)	Volatile Organic Compounds(VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2004	35.4	2987.2	3262.4	26.9	148.1	0	27.3
2003	34.5	3190.5	3429.9	26	154.7	0	25
2002	34.4	3562.9	4164.8	26	160.9	0	25
2001	34.5	2897.9	4033.1	24.4	154.2	0	24.0
2000	39.1	2425.6	3651.6	22.6	128.5	0	15.4

EMISSION UNITS WITH LIMITATIONS

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

Emission Unit #	Description of Emission Unit
EU-0010	Boiler #1.
EU-0020	Boiler #2.
EU-0030	Boiler #3.
EU-0040	Boiler #4.
EU-0050	Boiler #5, ESP.
EU-0060	Boiler #6, ESP.
EU-0070	Gas Turbine #5 (Combustion Turbine #5).
EU-0080	No. 6 Jet Engine (Combustion Turbine #6).
EU-0090	No. 7 Jet Engine (Combustion Turbine #7).
EU-0260A	Mechanical discharge exhauster located on top of the Fly Ash Silo.
EU-0260B	Mechanical discharge exhauster located on top of the Fly Ash Silo.
EU-0270A	Bin Vent Filter located on top of the Fly Ash Silo.
EU-0270B	Bin Vent Filter located on top of the Fly Ash Silo.

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	
EU-0100	Unpaved Road.
EU-0110	Rotary Car Coal Unloading.
EU-0120	Coal Transfer Belts.
EU-0130	Coal Storage.
EU-0140	Fly Ash Temporary Storage.
EU-0150	Fly Ash Transfer Tank.
EU-0160	#1 Oil Tank (Number 2 Oil).

EU-0170	#3 Oil Tank (Number 2 Oil).
EU-0180	#2 Oil Tank (Number 2 Oil).
EU-0190	Waste Oil Tank.
EU-0200	Diesel Blend Tank.
EU-0210	#4 Oil Tank (Number 2 Oil).
EU-0230	Fugitive Solvent Usage.
EU-0240	Crusher Building (Transferring, Dropping and Coal Crushing).
EU-0250	Truck Dump Area./Reclaim.
EU-0280A	Fly Ash Truck Unloading.
EU-0280B	Fly Ash Truck Unloading.
EU-0290	Conveyor belts 6 and 7.
EU-0300	Conveyor belt 8.
EU-0310	Conveyor belts 1 and 2.
EU-0320	Emergency Coal Stockout Pile.
EU-0330	Conveyor belt 4.
EU-0340	Lime additive area for plant water treatment.
EU-0350	#5 Oil Tank (Number 2 Oil).

Description of Emission Sources

IA-01 Cooling towers 1,2, and 3.

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) May 25, 2001 Consent Decree between St. Joseph Light & Power Company and the Missouri Department of Natural Resources, Case No. 01CV74164, Div#1.
- 2) Phase II Acid Rain permits for Boiler 6, project #EX0210004020
- 3) Construction Permit #0389-003
- 4) Construction Permit #0689-002
- 5) Construction Permit #0190-009
- 6) Construction Permit #0196-011
- 7) Construction Permit #062006-001

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.

There are no plant wide emission limitations for this installation.

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 – Boiler 1			
Emission Unit	Description	Manufacturer/Model #	2004 EIQ Reference #
EU0010	Boiler #1 & #1 Stack, Maximum Design Rate 192 MMBTU/Hr, Primary Fuel – Natural Gas, Secondary Fuel – No. 2 Fuel Oil	Date of Manufacture – 1961	EP01 (2004)

PERMIT CONDITION EU0010-001
10 CSR 10-2.040 Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating

Emission Limitation:

The permittee shall not emit particulate matter in excess of 0.15 pounds per million BTU of heat input.

Operational Limitation/Equipment Specifications:

This emission unit shall be limited to burning natural gas, No. 2 fuel oil, and propane.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain on the premises of the installation calculations, using Appendix M or a similar form created by the permittee, demonstrating compliance with this rule.
- 2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.

Reporting:

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

PERMIT CONDITION EU0010-002
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds, May 25, 2001 Consent Agreement

Emission Limitation:

- 1) The permittee shall not cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of 0.0524 pounds of sulfur dioxide per million BTUs actual heat input averaged on a 24-hour daily block average basis (Consent Agreement).
- 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.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m ³	1-hour average not to be exceeded more than once in any 2 consecutive days

Operational Limitation/Equipment Specifications:

- 1) The emission unit shall be limited to fuel oil with a sulfur content of no more than 0.05% sulfur by weight. (Consent Agreement).
- 2) The emission unit shall be limited to natural gas, No. 2 fuel oil and Propane (Consent Agreement).
- 3) Propane may be burned for light off and flame stabilization during periods of natural gas curtailment and for testing of the propane combustion system (Consent Agreement).

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of the fuel type used verifying a sulfur content less than 0.05% by weight (Consent Agreement). Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable. If this cannot be accomplished then compliance to the emission limitations shall be determined by source testing and shall be accomplished as specified in 10 CSR 10-6.030(6) for sulfur dioxide emissions and 10 CSR 10-6.040 for measuring ambient sulfur compound concentrations. Other methods approved by the staff director in advance may be used.
- 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:

1. The following fuel certification deliverables are to be submitted to the MDNR Air Pollution Control Program, Enforcement Section on a quarterly basis no later than 30 days after the end of the previous quarter:
 - a) Submittal of a supplier Certificate for Fuel Oil Sulfur Content (see Appendix 1). The certificate is completed by the fuel supplier and certifies the fuel is compliant, (Consent Agreement)
 - b) Submittal of a Certificate of Fuel Sulfur Content (see Appendix 1). This certifies that only compliant fuel was charged to boilers 1 through 4 and combustion turbines 5 through 7 and shall be completed by SJLP (Consent Agreement).

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

PERMIT CONDITION EU0010-003

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

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 an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) When combusting fuel oil, the permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA 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.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results, for the time period when combusting fuel oil, (see Attachment B1 or B2), 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 B3)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment B4)
- 4) Attachments B1 or B2, B3 and B4 contain logs including these recordkeeping 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 Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.

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

EU0020 – Boiler 2			
Emission Unit	Description	Manufacturer/Model #	2004 EIQ Reference #
EU0020	Boiler #2 & #2 Stack, Maximum Design Rate 192 MMBTU/Hr, Electric Generation > 100 Million BTU/Hr Except Tangential Primary Fuel – Natural Gas, Secondary Fuel – No. 2 Fuel Oil	Date of Manufacture – 1961	EP02 (2004)

PERMIT CONDITION EU0020-001
10 CSR 10-2.040 Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating

Emission Limitation:

The permittee shall not emit particulate matter in excess of 0.15 pounds per million BTU of heat input.

Operational Limitation/Equipment Specifications:

This emission unit shall be limited to burning natural gas, No. 2 fuel oil, and propane.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain on the premises of the installation calculations, using Appendix M or a similar form created by the permittee, demonstrating compliance with this rule.
- 2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.

Reporting:

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

PERMIT CONDITION EU0020-002
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds, May 25, 2001 Consent Agreement

Emission Limitation:

- 1) The permittee shall not cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of 0.0524 pounds of sulfur dioxide per million BTUs actual heat input averaged on a 24-hour daily block average basis (Consent Agreement).
- 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.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m ³	1-hour average not to be exceeded more than once in any 2 consecutive days

Operational Limitation/Equipment Specifications:

- 1) The emission unit shall be limited to fuel oil with a sulfur content of no more than 0.05% sulfur by weight. (Consent Agreement).
- 2) The emission unit shall be limited to natural gas, No. 2 fuel oil and Propane (Consent Agreement).
- 3) Propane may be burned for light off and flame stabilization during periods of natural gas curtailment and for testing of the propane combustion system (Consent Agreement).

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of the fuel type used verifying a sulfur content less than 0.05% by weight (Consent Agreement). Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable. If this cannot be accomplished then compliance to the emission limitations shall be determined by source testing and shall be accomplished as specified in 10 CSR 10-6.030(6) for sulfur dioxide emissions and 10 CSR 10-6.040 for measuring ambient sulfur compound concentrations. Other methods approved by the staff director in advance may be used.
- 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:

- 1) The following fuel certification deliverables are to be submitted to the MDNR Air Pollution Control Program, Enforcement Section on a quarterly basis no later than 30 days after the end of the previous:
 - a) Submittal of a supplier Certificate for Fuel Oil Sulfur Content (see Appendix 1). The certificate is completed by the fuel supplier and certifies the fuel is compliant, (Consent Agreement)
 - b) Submittal of a Certificate of Fuel Sulfur Content (see Appendix 1). This certifies that only compliant fuel was charged to boilers 1 through 4 and combustion turbines 5 through 7 and shall be completed by SJLP (Consent Agreement).
- 2) The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU0020-003

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

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 an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) When combusting fuel oil, the permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA 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.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results, for the time period when combusting fuel oil, (see Attachment B1 or B2), 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 B3)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment B4)
- 4) Attachments B1 or B2, B3 and B4 contain logs including these recordkeeping 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 Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0030 – Boiler 3			
Emission Unit	Description	Manufacturer/Model #	2004 EIQ Reference #
EU0030	Boiler #3 & #3 Stack, Maximum Design Rate 238 MMBTU/Hr, Primary Fuel – Natural Gas, Secondary Fuel – None	Date of Manufacture – 1938	EP03 (2004)

PERMIT CONDITION EU0030-001
10 CSR 10-2.040 Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating

Emission Limitation:

The permittee shall not emit particulate matter in excess of 0.15 pounds per million BTU of heat input.

Operational Limitation/Equipment Specifications:

This emission unit shall be limited to burning natural gas.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain on the premises of the installation calculations, using Appendix M or a similar form created by the permittee, demonstrating compliance with this rule.
- 2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.

Reporting:

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

PERMIT CONDITION EU0030-002
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds, May 25, 2001 Consent Agreement

Emission Limitation:

- 1) The permittee shall not cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of 0.0006 pounds of sulfur dioxide per million BTUs actual heat input averaged on a 24-hour daily block average basis (Consent Agreement).
- 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.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m ³	1-hour average not to be exceeded more than once in any 2 consecutive days

Operational Limitation/Equipment Specifications:

The emission unit shall be limited to natural gas (Consent Agreement).

Monitoring/Recordkeeping:

- 1) Fuel purchase receipts shall be retained for all natural gas purchased. Other methods approved by the staff director in advance may be used.
- 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:

- 1) The following fuel certification deliverables are to be submitted to the MDNR Air Pollution Control Program, Enforcement Section on a quarterly basis no later than 30 days after the end of the previous: Submittal of a Certificate of Fuel Sulfur Content (see Appendix 1). This certifies that only compliant fuel was charged to boilers 1 through 4 and combustion turbines 5 through 7 and shall be completed by SJLP (Consent Agreement).
- 2) The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

EU0040 – Boiler 4			
Emission Unit	Description	Manufacturer/Model #	2004 EIQ Reference #
EU0040	Boiler #4 & #4 Stack, Maximum Design Rate 311 MMBTU/Hr Primary Fuel – Natural Gas, Secondary Fuel – No. 2 fuel oil	Date of Manufacture – 1950	EP04 (2004)

PERMIT CONDITION EU0040-001
 10 CSR 10-2.040 Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating

Emission Limitation:

The permittee shall not emit particulate matter in excess of 0.15 pounds per million BTU of heat input.

Operational Limitation/Equipment Specifications:

This emission unit shall be limited to burning natural gas, No. 2 fuel oil, and propane.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain on the premises of the installation calculations, using Appendix M or a similar form created by the permittee, demonstrating compliance with this rule.
- 2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.

Reporting:

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

PERMIT CONDITION EU0040-002
 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds,
 May 25, 2001 Consent Agreement

Emission Limitation:

- 1) The permittee shall not cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of 0.0524 pounds of sulfur dioxide per million BTUs actual heat input averaged on a 24-hour daily block average basis (Consent Agreement).
- 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.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m ³	1-hour average not to be exceeded more than once in any 2 consecutive days

Operational Limitation/Equipment Specifications:

- 1) The emission unit shall be limited to fuel oil with a sulfur content of no more than 0.05% sulfur by weight. (Consent Agreement).
- 2) The emission unit shall be limited to natural gas, No. 2 fuel oil and Propane (Consent Agreement).
- 3) Propane may be burned for light off and flame stabilization during periods of natural gas curtailment and for testing of the propane combustion system.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of the fuel type used verifying a sulfur content less than 0.05% by weight (Consent Agreement). Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable. If this cannot be accomplished then compliance to the emission limitations shall be determined by source testing and shall be accomplished as specified in 10 CSR 10-6.030(6) for sulfur dioxide emissions and 10 CSR 10-6.040 for measuring ambient sulfur compound concentrations. Other methods approved by the staff director in advance may be used.
- 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:

- 1) The following fuel certification deliverables are to be submitted to the MDNR Air Pollution Control Program, Enforcement Section on a quarterly basis no later than 30 days after the end of the previous:
 - a) Submittal of a supplier Certificate for Fuel Oil Sulfur Content (see Appendix 1). The certificate is completed by the fuel supplier and certifies the fuel is compliant, (Consent Agreement)
 - b) Submittal of a Certificate of Fuel Sulfur Content (see Appendix 1). This certifies that only compliant fuel was charged to boilers 1 through 4 and combustion turbines 5 through 7 and shall be completed by SJLP (Consent Agreement).
- 2) The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU0040-003

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

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 an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) When combusting fuel oil, the permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA 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.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results, for the time period when combusting fuel oil, (see Attachment B1 or B2), 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 B3)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment B4)
- 4) Attachments B1 or B2, B3 and B4 contain logs including these recordkeeping 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 Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0050 – Boiler 5			
Emission Unit	Description	Manufacturer/Model #	2004 EIQ Reference #
EU0050	Boiler #5, ESP, and #5 Stack (coal), Maximum Design Rate 336 MMBTU/Hr, Electric Generation natural gas boiler > 100 Million Btu/hr except Tangential. Bituminous/ and sub-bituminous blend coal – dry bottom Primary Fuel – Coal (high or medium sulfur blended w/ low sulfur), Secondary Fuel – Natural Gas	Date of Manufacture – 1957	EP05 (2004)

<p>PERMIT CONDITION EU0050-001</p> <p>10-2.040 Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating</p>
--

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of 0.15 pounds per million BTU of heat input.
- 2) The emission unit shall be limited to burning coal (high or medium sulfur blended w/ low sulfur), natural gas and propane.

Operational Limitation/Equipment Specifications:

- 1) Periodic monitoring for particulate matter, as defined below, is not required during periods of time greater than one day in which the source does not operate. Calculations based on the use of emission factors suggest that the installation must operate control devices (Electrostatic Precipitators (ESP)) to meet the particulate emission limit for this source. The control device is required to be in service and operational when EU0050 is operation. Exception: Except as defined in 10 CSR 10-6.050, Start-Up, Shutdown, and Malfunction Conditions” and if the unit is running on 100% natural gas. Operation of the control device must be maintained using standard manufacturer recommendations and Good Engineering Practices (GEP).
- 2) An operation and maintenance plan shall be developed in accordance with manufacturer specifications for the ESP.

Monitoring:

- 1) For particulate matter periodic monitoring compliance, a record of the any stack tests conducted on this unit within the last 5 years on this unit or any subsequent testing will be maintained and made available immediately for inspection to the Department of Natural Resources upon request.
- 2) For particulate matter periodic monitoring compliance, the permittee shall monitor three specific parameters that can be used to indicate the ESP’s performance. The permittee shall monitor the primary and secondary voltage, primary and secondary current and number of fields on line at least once each week when the unit is on line.
- 3) The permittee makes a commitment to take timely corrective action during periods of excursions where the indicators of the electrostatic precipitator performance are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return the operation within the indicator range. An excursion is determined by the average discreet data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not indicate a violation of an applicable requirement. ESP parameters alone are not prima facie evidence of a violation but may be used with other information to establish a violation of a particulate matter limitation.
- 4) An audible or visual alarm that indicates precipitator trouble will be monitored.
- 5) Inspection of the rapper operation, T-R set operation, inspection of the ash removal system are required to be included in the operation and maintenance plan. Corrective action measures will be implemented on the occurrence of an abnormal condition. Abnormal conditions will include the following: a T-R set failure, rapper system failure, ash transport system failure.
- 6) Each major unit overhaul shall be defined in the maintenance plan to include the checking and correct plate electrode alignment, the inspection of the condition collection surface fouling, the mechanical condition of the T-R set and the inspection of the internal structural components. Corrective action procedures will be devised and implemented on the occurrence of an abnormal condition. The appropriate measures for remediation will be implemented in a timely manner.

Recordkeeping:

- 1) The permittee shall maintain a written or electronic copy of all inspections and any action resulting from the inspection. (See Attachment C – This log or an equivalent created by the permittee must be used to certify compliance with this requirement.)
- 2) All instrument calibration shall be recorded.
- 3) Maintain a spare parts inventory by a computerized inventory or other Administrator approved management system.
- 4) The permittee shall maintain a record of the initial stack testing and any other subsequent testing or test information for particulate matter required from this rule.
- 5) The permittee shall maintain records of any monitoring or control equipment malfunctions.

- 6) All records shall be maintained for five years. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or operating parameter range listed above.
- 2) Reports of any deviations from monitoring other than the operating parameter range, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

PERMIT CONDITION EU0050-002

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

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA 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.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment B1 or B2), 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 B3)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment B4)
- 4) Attachments B1 or B2, B3 and B4 contain logs including these recordkeeping 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 Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

PERMIT CONDITION EU0050-003
 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds,
 May 25, 2001 Consent Agreement

Emission Limitation:

- 1) The permittee shall not cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of 1.3490 pounds of sulfur dioxide per million BTUs actual heat input averaged on a 24-hour daily block average basis (Consent Agreement).
- 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.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m ³	1-hour average not to be exceeded more than once in any 2 consecutive days

Operational Limitation/Equipment Specifications:

- 1) The emission unit shall be limited to (high sulfur or medium sulfur coal (SO₂ emission potential greater than 1.2 Lbs SO₂/MMBTU) blended w/low sulfur (SO₂ emission potential less than 1.2 Lbs SO₂/MMBTU)), natural gas and propane. (Consent Agreement).
- 2) Propane may be burned for light off and flame stabilization during periods of natural gas curtailment and for testing of the propane combustion system (Consent Agreement).

Monitoring/Recordkeeping:

- 1) Compliance with the 24-hour daily average for Boilers #5 will be determined by using the following procedures. The 24-hour daily block average is defined as a midnight to midnight block average, which includes SO₂ emission rates for only the hours during which the unit was operating. The Variable Table located in the Appendix 1 should be used when making these calculations

For Boiler 5:

$$\left[\frac{\sum_{hour=1}^{24} \left[\left(\frac{\#Coal}{hour} \right) \left(\frac{\#S}{\#Coal} \right) \left(\frac{F_{blend} \times \#SO_2}{\#S} \right) \right]}{\sum_{hour=1}^{24} \left(\frac{mmBtu_{(coal+gas)}}{hour} \right)} \right] \leq 1.349 \left(\frac{\#SO_2}{mmBtu} \right) \text{ (Consent Agreement)}$$

- 2) Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable. If this cannot be accomplished then compliance to the emission limitations shall be determined by source testing and shall be accomplished as specified in 10 CSR 10-6.030(6) for sulfur dioxide emissions and 10 CSR 10-6.040 for measuring ambient sulfur compound concentrations. Other methods approved by the staff director in advance may be used.
- 3) Records of the sampling and analysis of the coal blend (including the sulfur and heat content) shall be kept on file at the Installation for a period of five years from the date of sampling. (Consent Agreement)
- 4) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 5) All records shall be maintained for five years.

Reporting:

- 1) The following deliverables are to be submitted to the MDNR Air pollution Control Program, Enforcement Section on a quarterly basis no later than 30 days after the end of the previous quarter:
 - a) Sampling and analysis of coal blend for boiler 5 (including the sulfur and heat content) (Consent Agreement)
 - b) Quarterly Excess Emission Report for Boiler 5 (Consent Agreement)
- 2) The permittee shall report any change of fuel type to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65101 within ten (10) days of the switch of fuel types.
- 3) The permittee shall report to the Air Pollution Control Enforcement Section no later than ten (10) days after any exceedance of 10 CSR 10-6.260 demonstrated by the appropriate recordkeeping forms.

PERMIT CONDITION EU0050-004

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
40 CFR Part 63 Subpart A General Provisions

Emission Limitation:

- 1) The permittee must meet the requirements in §63.7500(a)(1) and (2).
 - a) The permittee must meet each emission limit and work practice standard in Table 1 to subpart DDDDD that applies to an existing large source fuel boiler or process heater:
 - i) The permittee shall not emit particulate matter (or total selected metals) in excess of 0.07 lb per MMBtu of heat input; or (0.001 lb per MMBtu of heat input).

- ii) The permittee shall not emit hydrogen chloride in excess of 0.09 lb per MMBtu of heat input.
- iii) The permittee shall not emit mercury in excess 0.000009 lb per MMBtu of heat input.
- b) The permittee must meet each operating limit in Tables 2 through 4 (see Attachment F through H) to subpart DDDDD that applies to an existing boiler or process heater. If unit uses a control device or combination of control devices not covered in Tables 2 through 4 (see Attachment F through H) to subpart DDDDD, or the permittee wish to establish and monitor an alternative operating limit and alternative monitoring parameters, the permittee must apply to the Air Pollution Control Program (APCP) of the Missouri Department of Natural Resources for approval of alternative monitoring under §63.8(f).
- 2) The permittee must meet the requirements in §63.7500(a)(1) and (2).
 - a) The permittee must meet each emission limit and work practice standard in Table 1 to subpart DDDDD that applies to an existing limited use solid fuel boiler or process heater:
 - i) The permittee shall not emit particulate matter (or total selected metals) in excess of 0.21 lb per MMBtu of heat input; or (0.004 lb per MMBtu of heat input).
 - b) The permittee must meet each operating limit in Tables 2 through 4 (see Attachment F through H) to subpart DDDDD that applies to a boiler or process heater. If the permittee use a control device or combination of control devices not covered in Tables 2 through 4 (see Attachment F through H) to subpart DDDDD, or the permittee wish to establish and monitor an alternative operating limit and alternative monitoring parameters, the permittee must apply to the Air Pollution Control Program (APCP) of the Missouri Department of Natural Resources for approval of alternative monitoring under §63.8(f).
- 3) As an alternative to the requirement for large solid fuel boilers located at a single facility to demonstrate compliance with the HCl emission limit in Table 1 to subpart DDDDD, the permittee may demonstrate eligibility for the health-based compliance alternative for HCl emissions under the procedures prescribed in appendix A to subpart DDDDD.
- 4) In lieu of complying with the TSM emission standards in Table 1 to subpart DDDDD based on the sum of emissions for the eight selected metals, the permittee may demonstrate eligibility for complying with the TSM emission standards in Table 1 based on the sum of emissions for seven selected metals (by excluding manganese emissions from the summation of TSM emissions) under the procedures prescribed in appendix A to subpart DDDDD.

Compliance Demonstration:

Compliance Dates

- 1) The permittee must comply with subpart DDDDD no later than September 13, 2007.
- 2) The permittee must demonstrate initial compliance no later than 180 days after the compliance date that is specified for the source in §63.7495 and according to the applicable provisions in §63.7(a)(2) as cited in Table 10 to subpart DDDDD.

General Compliance Demonstration

- 1) The permittee must be in compliance with the emission limits (including operating limits) and the work practice standards in subpart DDDDD at all times, except during periods of startup, shutdown, and malfunction.
- 2) The permittee must always operate and maintain the affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).
- 3) The permittee can demonstrate compliance with any applicable emission limit using fuel analysis if the emission rate calculated according to §63.7530(d) is less than the applicable emission limit. Otherwise, the permittee must demonstrate compliance using performance testing.
- 4) If the permittee demonstrate compliance with any applicable emission limit through performance testing, the permittee must develop a site-specific monitoring plan according to the requirements in §63.7505(d)(1) through (4). This requirement also applies to the permittee if they petition the EPA Administrator for alternative monitoring parameters under §63.8(f).
 - a) For each continuous monitoring system (CMS) required in this section, the permittee must develop and submit to the EPA Administrator for approval a site specific monitoring plan that addresses §63.7505(d)(1)(i) through (iii). The permittee must submit this site specific monitoring plan at least 60 days before an initial performance evaluation of the CMS.

- i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);
 - ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and
 - iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).
- b) In the site-specific monitoring plan, the permittee must also address §63.7505(d)(2)(i) through (iii).
- i) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (c)(3), and (c)(4)(ii);
 - ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and
 - iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i).
- c) The permittee must conduct a performance evaluation of each CMS in accordance with the site-specific monitoring plan.
- d) The permittee must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.
- 5) If the permittee has an applicable emission limit or work practice standard, the permittee must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).

Initial Compliance Demonstration

- 1) For affected sources that elect to demonstrate compliance with any of the emission limits of subpart DDDDD through performance testing, the initial compliance requirements include conducting performance tests according to §63.7520 and Table 5 (see Attachment I) to subpart DDDDD, conducting a fuel analysis for each type of fuel burned in the boiler or process heater according to §63.7521 and Table 6 (see Attachment J) to subpart DDDDD, establishing operating limits according to §63.7530 and Table 7 (see Attachment K) to subpart DDDDD, and conducting CMS performance evaluations according to §63.7525.
- 2) For affected sources that elect to demonstrate compliance with the emission limits for HCl, mercury, or TSM through fuel analysis, the initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in the boiler or process heater according to §63.7521 and Table 6 (see Attachment J) to subpart DDDDD and establish operating limits according to §63.7530 and Table 8 (see Attachment L) to subpart DDDDD.
- 3) The initial compliance demonstration is conducting a performance evaluation of the continuous emission monitoring system (CEM) for carbon monoxide according to §63.7525(a).
- 4) The permittee must demonstrate initial compliance with each emission limit and work practice standard that applies to the permittee by either conducting initial performance tests and establishing operating limits, as applicable, according to §63.7520, §63.7530(c), and Tables 5 and 7 (see Attachments I and K) to this subpart OR conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to §63.7521, §63.7530(d), and Tables 6 and 8 (see Attachments J and L) to subpart DDDDD.
- 5) The permittee must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.7545(e).

Continuous Compliance Demonstration

- 1) The permittee must demonstrate continuous compliance with each emission limit, operating limit, and work practice standard in Tables 1 through 4 (see Attachments F through H) to subpart DDDDD that applies to the permittee according to the methods specified in Table 8 (see Attachment L) to subpart DDDDD and §63.7540(a)(1) through (10).
 - a) Following the date on which the initial performance test is completed or is required to be completed under §§63.7510 and 63.7510, whichever date comes first, the permittee must not operate above any of the applicable maximum operating limits or below any of the applicable minimum operating limits listed in Tables 2 through 4 to (see Attachments F through H) subpart DDDDD at all times except during periods of startup, shutdown and

malfunction. Operating limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits.

- b) The permittee must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would either result in lower emissions of TSM, HCl, and mercury, than the applicable emission limit for each pollutant (if Permittee demonstrate compliance through fuel analysis), or result in lower fuel input of TSM, chlorine, and mercury than the maximum values calculated during the last performance tests (if the permittee demonstrate compliance through performance testing).
- c) If the permittee demonstrate compliance with an applicable HCl emission limit through fuel analysis and plans to burn a new type of fuel, Permittee must recalculate the HCl emission rate using Equation 9 of §63.7530 according to §63.7540(a)(3)(i) through (iii).
 - i) The permittee must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data and the permittee's fuel analysis, according to the provisions in the site-specific fuel analysis plan developed according to §63.7521(b).
 - ii) The permittee must determine the new mixture of fuels that will have the highest content of chlorine.
 - iii) Recalculate the HCl emission rate from the boiler or process heater under these new conditions using Equation 9 of §63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.
- d) If the permittee demonstrate compliance with an applicable HCl emission limit through performance testing and plans to burn a new type of fuel type or new mixture of fuels, the permittee must recalculate the maximum chlorine input using Equation 5 of §63.7530. If the results of recalculating the maximum chlorine input using Equation 5 of §63.7530 are higher than the maximum chlorine input level established during the previous performance test, then the permittee must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. The permittee must also establish new operating limits based on this performance test according to the procedures in §63.7530(c).
- e) If the permittee demonstrate compliance with an applicable TSM emission limit through fuel analysis, and plans to burn a new type of fuel, the permittee must recalculate the TSM emission rate using Equation 10 of §63.7530 according to the procedures specified in §63.7540(a)(5)(i) through (iii).
 - i) The permittee must determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or their own fuel analysis, according to the provisions in the site-specific fuel analysis plan developed according to §63.7521(b).
 - ii) The permittee must determine the new mixture of fuels that will have the highest content of TSM.
 - iii) Recalculate the TSM emission rate from the boiler or process heater under these new conditions using Equation 10 of §63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.
- f) If the permittee demonstrates compliance with an applicable TSM emission limit through performance testing, and plans to burn a new type of fuel or a new mixture of fuels, the permittee must recalculate the maximum TSM input using Equation 6 of §63.7530. If the results of recalculating the maximum total selected metals input using Equation 6 of §63.7530 are higher than the maximum TSM input level established during the previous performance test, then the permittee must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. The permittee must also establish new operating limits based on this performance test according to the procedures in §63.7530(c).
- g) If the permittee demonstrate compliance with an applicable mercury emission limit through fuel analysis, and plans to burn a new type of fuel, the permittee must recalculate the mercury emission rate using Equation 11 of §63.7530 according to the procedures specified in §63.7540(a)(7)(i) through (iii).
 - i) The permittee must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or their own fuel analysis, according to the provisions in the site-specific fuel analysis plan developed according to §63.7521(b).
 - ii) The permittee must determine the new mixture of fuels that will have the highest content of mercury.

- iii) Recalculate the mercury emission rate from their boiler or process heater under these new conditions using Equation 11 of §63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.
 - h) If the permittee demonstrate compliance with an applicable mercury emission limit through performance testing, and plans to burn a new type of fuel or a new mixture of fuels, the permittee must recalculate the maximum mercury input using Equation 7 of §63.7530. If the results of recalculating the maximum mercury input using Equation 7 of §63.7530 are higher than the maximum mercury input level established during the previous performance test, then the permittee must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. The permittee must also establish new operating limits based on this performance test according to the procedures in §63.7530(c).
 - i) If the unit is controlled with a fabric filter, and the permittee demonstrates continuous compliance using a bag leak detection system, the permittee must initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions according to their SSMP, and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. The permittee must also keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. The permittee must also record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the permittee takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.
 - j) If the permittee have an applicable work practice standard for carbon monoxide, and the permittee are required to install a CEMS according to §63.7525(a), then the permittee must meet the requirements in §63.7540(a)(10)(i) through (iii).
 - i) The permittee must continuously monitor carbon monoxide according to §§63.7525(a) and 63.7535.
 - ii) Maintain a carbon monoxide emission level below the applicable carbon monoxide work practice standard in Table 1 to subpart DDDDD at all times except during periods of startup, shutdown, malfunction, and when the boiler or process heater is operating at less than 50 percent of rated capacity.
 - iii) Keep records of carbon monoxide levels according to §63.7555(b).
- 2) The permittee must report each instance in which the unit did not meet each emission limit, operating limit, and work practice standard in Tables 1 through 4 (see Attachments F through H) subpart DDDDD that apply to the unit. The permittee must also report each instance during a startup, shutdown, or malfunction when the unit did not meet each applicable emission limit, operating limit, and work practice standard. These instances are deviations from the emission limits and work practice standards in subpart DDDDD. These deviations must be reported according to the requirements in §63.7550.
- 3) During periods of startup, shutdown, and malfunction, the permittee must operate in accordance with the SSMP as required in §63.7505(e).
- 4) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if the permittee demonstrates to the EPA Administrator's satisfaction that the unit was operating in accordance with the SSMP. The EPA Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).
- 5) Following the compliance date, the permittee must demonstrate compliance with subpart DDDDD on a continuous basis by meeting the requirements of §63.7541(a)(1) through (4).
- a) For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing large solid fuel boilers participating in the emissions averaging option as determined in §63.7522(f) and (g);
 - b) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a dry control system, maintain opacity at or below the applicable limit;

- c) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 3-hour average parameter values at or below the operating limits established during the most recent performance test; and
- d) For each existing solid fuel boiler participating in the emissions averaging option that has an approved alternative operating plan, maintain the 3-hour average parameter values at or below the operating limits established in the most recent performance test.
- e) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in §63.7541(a)(1) through (4), except during periods of startup, shutdown, and malfunction, is a deviation.

Test Methods and Calculations:

- 1) The permittee must conduct all performance tests according to §63.7(c), (d), (f), and (h). The permittee must also develop a site specific test plan according to the requirements in §63.7(c) if the permittee elects to demonstrate compliance through performance testing.
- 2) The permittee must conduct each performance test according to the requirements in Table 5 (see Attachment I) to subpart DDDDD.
- 3) The permittee must conduct each performance test under the specific conditions listed in Tables 5 and 7 (see Attachments I and K) to subpart DDDDD. The permittee must conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals, and the permittee must demonstrate initial compliance and establish the unit's operating limits based on these tests. These requirements could result in the need to conduct more than one performance test.
- 4) The permittee may not conduct performance tests during periods of startup, shutdown, or malfunction.
- 5) The permittee must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.
- 6) To determine compliance with the emission limits, the permittee must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of appendix A to part 60 of this chapter to convert the measured particulate matter concentrations, the measured HCl concentrations, the measured TSM concentrations, and the measured mercury concentrations that result from the initial performance test to pounds per million Btu heat input emission rates using F-factors.
- 7) If the permittee use fuel analysis to demonstrate compliance, the permittee must conduct fuel analyses according to the procedures in §63.7521(b) through (e) and Table 6 (see Attachment J) to subpart DDDDD, as applicable.
- 8) If the permittee use fuel analysis to demonstrate compliance, the permittee must develop and submit a site-specific fuel analysis plan to the EPA Administrator for review and approval according to the following procedures and requirements in §63.7521(b)(1) and (2).
- 9) The permittee must submit the fuel analysis plan no later than 60 days before the date that the permittee intend to demonstrate compliance.
- 10) The permittee must include the information contained in §63.7521(b)(2)(i) through (vi) in their fuel analysis plan.
- 11) The identification of all fuel types anticipated to be burned in each boiler or process heater.
- 12) For each fuel type, the notification of whether the permittee or a fuel supplier will be conducting the fuel analysis.
- 13) For each fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if procedures are different from §63.7521(c) or (d). Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.
- 14) For each fuel type, the analytical methods, with the expected minimum detection levels, to be used for the measurement of selected total metals, chlorine, or mercury.
- 15) If the permittee requests to use an alternative analytical method other than those required by Table 6 (see Attachment J) to subpart DDDDD, the permittee must also include a detailed description of the methods and procedures that will be used.
- 16) If the permittee will be using fuel analysis from a fuel supplier in lieu of site specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 (see Attachment J) to subpart DDDDD.

- 17) If Permittee use fuel analysis to demonstrate compliance, at a minimum, the permittee must obtain three composite fuel samples for each fuel type according to the procedures in §63.7521(c)(1) or (2).
- 18) If sampling from a belt (or screw) feeder, collect fuel samples according to §63.7521(c)(1)(i) and (ii).
- 19) Stop the belt and withdraw a 6-inch wide sample from the full cross section of the stopped belt to obtain a minimum two pounds of sample. Collect all the material (fines and coarse) in the full cross-section. Transfer the sample to a clean plastic bag.
- 20) Each composite sample will consist of a minimum of three samples collected at approximately equal intervals during the testing period.
- 21) If sampling from a fuel pile or truck, collect fuel samples according to §63.7521(c)(2)(i) through (iii).
- 22) For each composite sample, select a minimum of five sampling locations uniformly spaced over the surface of the pile.
- 23) At each sampling site, dig into the pile to a depth of 18 inches. Insert a clean flat square shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling.
- 24) Transfer all samples to a clean plastic bag for further processing.
- 25) If Permittee use fuel analysis to demonstrate compliance, the permittee must prepare each composite sample according to the procedures in §63.7521(d)(1) through (7).
- 26) Thoroughly mix and pour the entire composite sample over a clean plastic sheet.
- 27) Break sample pieces larger than 3 inches into smaller sizes.
- 28) Make a pie shape with the entire composite sample and subdivide it into four equal parts.
- 29) Separate one of the quarter samples as the first subset.
- 30) If this subset is too large for grinding, repeat the procedure in §63.7521(d)(3) with the quarter sample and obtain a one-quarter subset from this sample.
- 31) Grind the sample in a mill.
- 32) Use the procedure in §63.7521(d)(3) to obtain a one quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.
- 33) If Permittee use fuel analysis to demonstrate compliance, determine the concentration of pollutants in the fuel (mercury, chlorine, and/or total selected metals) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 (see Attachment J) to subpart DDDDD.
- 34) As an alternative to meeting the requirements of §63.7500, if the permittee have more than one existing large solid fuel boiler located at the facility, the permittee may demonstrate compliance by emission averaging according to the procedures in §63.7522.
- 35) For each existing large solid fuel boiler in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on November 12, 2004 or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on November 12, 2004.
- 36) The permittee may average particulate matter or TSM, HCl, and mercury emissions from existing large solid fuel boilers to demonstrate compliance with the limits in Table 1 to subpart DDDDD if the permittee satisfy the requirements in §63.7522(d), (e), and (f).
- 37) The weighted average emissions from the existing large solid fuel boilers participating in the emissions averaging option must be in compliance with the limits in Table 1 to subpart DDDDD at all times following the compliance date specified in §63.7495.
- 38) The permittee must demonstrate initial compliance according to §63.7522(e)(1) or (2).
- 39) The permittee must use Equation 1 to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to subpart DDDDD.

$$AveWeighted\ Emissions = \sum_{i=1}^n (Er \times Hm) \div \sum_{i=1}^n Hm \quad (Eq. 1)$$

Where:

AveWeighted = Average weighted emissions for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 (see Attachment I) to subpart DDDDD) or fuel analysis (as calculated by the applicable equation in §63.7530(d)) for boiler, *i*, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hm = Maximum rated heat input capacity of boiler, *i*, in units of million Btu per hour.

n = Number of large solid fuel boilers participating in the emissions averaging option.

- 40) If the permittee are not capable of monitoring heat input, the permittee can use Equation 2 as an alternative to using equation 1 to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to subpart DDDDD.

$$\textit{AveWeighted Emissions} = \sum_{i=1}^n (Er \times Sm \times Cf) \div \sum_{i=1}^n Sm \times Cf \quad (\text{Eq. 2})$$

Where:

AveWeighted = Average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 (see Attachment I) to subpart DDDDD) or fuel analysis (as calculated by the applicable equation in §63.7530(d)) or boiler, *i*, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Sm = Maximum steam generation by boiler, *i*, in units of pounds.

Cf = Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

- 41) The permittee must demonstrate continuous compliance on a 12-month rolling average basis determined at the end of every month (12 times per year) according to §63.7522(f)(1) and (2). The first 12-month rolling-average period begins on the compliance date specified in §63.7495.

- 42) For each calendar month, the permittee must use Equation 3 to calculate the 12-month rolling average weighted emission limit using the actual heat capacity for each existing large solid fuel boiler participating in the emissions averaging option.

$$\textit{AveWeighted Emissions} = \sum_{i=1}^n (Er \times Hb) \div \sum_{i=1}^n Hb \quad (\text{Eq. 3})$$

Where:

AveWeighted Emissions = 12-month rolling average weighted emission level for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate, calculated during the most recent compliance test, (as calculated according to Table 5 (see Attachment I) to subpart DDDDD) or fuel analysis (as calculated by the applicable equation in §63.7530(d)) for boiler, *i*, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hb = The average heat input for each calendar month of boiler, *i*, in units of million Btu.

n = Number of large solid fuel boilers participating in the emissions averaging option.

- 43) If the permittee are not capable of monitoring heat input, the permittee can use Equation 4 as an alternative to using Equation 3 to calculate the 12-month rolling average weighted emission limit using the actual steam generation from the large solid fuel boilers participating in the emissions averaging option.

$$\textit{AveWeighted Emissions} = \sum_{i=1}^n (Er \times Sa \times Cf) \div \sum_{i=1}^n Sa \times Cf \quad (\text{Eq. 4})$$

Where:

AveWeighted Emissions = 12-month rolling average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

E_r = Emission rate, calculated during the most recent compliance test (as calculated according to Table 5 (see Attachment I) to subpart DDDDD) or fuel analysis (as calculated by the applicable equation in §63.7530(d)) for boiler, i , for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

S_a = Actual steam generation for each calendar month by boiler, i , in units of pounds.

C_f = Conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

- 44) The permittee must develop and submit an implementation plan for emission averaging to the Air Pollution Control Program (APCP) of the Missouri Department of Natural Resources for review and approval according to the following procedures and requirements in §63.7522(g)(1) through (4).
- 45) The permittee must submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emission averaging option.
- 46) The permittee must include the information contained in §63.7522(g)(2)(i) through (vii) in Your implementation plan for all emission sources included in an emissions average:
- 47) The identification of all existing large solid fuel boilers in the averaging group, including for each either the applicable HAP emission level or the control technology installed on;
- 48) The process parameter (heat input or steam generated) that will be monitored for each averaging group of large solid fuel boilers;
- 49) The specific control technology or pollution prevention measure to be used for each emission source in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple sources, the owner or operator must identify each source;
- 50) The test plan for the measurement of particulate matter (or TSM), HCl, or mercury emissions in accordance with the requirements in §63.7520;
- 51) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;
- 52) If the permittee request to monitor an alternative operating parameter pursuant to §63.7525, the permittee must also include:
- 53) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and
- 54) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the applicable regulatory authority, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and
- 55) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.
- 56) Upon receipt, the regulatory authority shall review and approve or disapprove the plan according to the following criteria:
- 57) Whether the content of the plan includes all of the information specified in §63.7522(g)(2) ; and
- 58) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.
- 59) The applicable regulatory authority shall not approve an emission averaging implementation plan containing any of the following provisions:
- 60) Any averaging between emissions of differing pollutants or between differing sources; or
- 61) The inclusion of any emission source other than an existing large solid fuel boiler.
- 62) If the permittee demonstrate compliance through performance testing, the permittee must establish each site-specific operating limit in Tables 2 through 4 (see Attachment F through H) to subpart DDDDD that applies to the permittee according to the requirements in §63.7520, Table 7 (see Attachment K) to subpart DDDDD, and §63.7530(c)(4), as applicable. The permittee must also conduct fuel analyses according to §63.7521 and establish maximum fuel pollutant input levels according to §63.7530(c)(1) through (3), as applicable.
- 63) The permittee must establish the maximum chlorine fuel input (Cl_{input}) during the initial performance testing according to the procedures in §63.7530(c)(1)(i) through (iii).

- 64) The permittee must determine the fuel type or fuel mixture that the permittee could burn in the boiler or process heater that has the highest content of chlorine.
- 65) During the performance testing for HCl, Permittee must determine the fraction of the total heat input for each fuel type burned (Q_i) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned (C_i).
- 66) The permittee must establish a maximum chlorine input level using Equation 5.

$$Cl_{input} = \sum_{i=1}^n [(C_i)(Q_i)] \quad (\text{Eq. 5})$$

Where:

Cl_{input} = Maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu.

C_i = Arithmetic average concentration of chlorine in fuel type, i , analyzed according to §63.7521, in units of pounds per million Btu.

Q_i = Fraction of total heat input from fuel type, i , based on the fuel mixture that has the highest content of chlorine. If the permittee do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of “1” for Q_i .

n = Number of different fuel types burned in the boiler or process heater for the mixture that has the highest content of chlorine.

- 67) If the permittee chooses to comply with the alternative TSM emission limit instead of the particulate matter emission limit, the permittee must establish the maximum TSM fuel input level (TSM_{input}) during the initial performance testing according to the procedures in §63.7530(c)(2)(i) through (iii).
- 68) The permittee must determine the fuel type or fuel mixture that the permittee could burn in their boiler or process heater that has the highest content of TSM.
- 69) During the performance testing for TSM, the permittee must determine the fraction of total heat input from each fuel burned (Q_i) based on the fuel mixture that has the highest content of total selected metals, and the average TSM concentration of each fuel type burned (M_i).
- 70) The permittee must establish a baseline TSM input level using Equation 6.

$$TSM_{input} = \sum_{i=1}^n [(M_i)(Q_i)] \quad (\text{Eq. 6})$$

TSM_{input} = Maximum amount of TSM entering the boiler or process heater through fuels burned in units of pounds per million Btu.

M_i = Arithmetic average concentration of TSM in fuel type, i , analyzed according to §63.7521, in units of pounds per million Btu.

Q_i = Fraction of total heat input from based fuel type, i , based on the fuel mixture that has the highest content of TSM. If the permittee do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of “1” for Q_i .

n = Number of different fuel types burned in the boiler or process heater for the mixture that has the highest content of TSM.

- 71) The permittee must establish the maximum mercury fuel input level ($Mercury_{input}$) during the initial performance testing using the procedures in §63.7530(c)(3)(i) through (iii).
- 72) The permittee must determine the fuel type or fuel mixture that unit could burn in the boiler or process heater that has the highest content of mercury.
- 73) During the compliance demonstration for mercury, the permittee must determine the fraction of total heat input for each fuel burned (Q_i) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned (HG_i).
- 74) The permittee must establish a maximum mercury input level using Equation 7.

$$Mercury_{input} = \sum_{i=1}^n [(HG_i)(Q_i)] \quad (\text{Eq. 7})$$

Where:

Mercury_{input} = Maximum amount of mercury entering the boiler or process heater through fuels burned in units of pounds per million Btu.

HG_i = Arithmetic average concentration of mercury in fuel type, i, analyzed according to §63.7521, in units of pounds per million Btu.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If the permittee does not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of “1” for Q_i.

n = Number of different fuel types burned in the boiler or process heater for the mixture that has the highest content of mercury.

- 75) The permittee must establish parameter operating limits according to §63.7530(c)(4)(i) through (iv).
- 76) For a wet scrubber, the permittee must establish the minimum scrubber effluent pH, liquid flowrate, and pressure drop as defined in §63.7575, as an operating limits during the three-run performance test. If the permittee uses a wet scrubber and the permittee conduct separate performance tests for particulate matter, HCl, and mercury emissions, the permittee must establish one set of minimum scrubber effluent pH, liquid flowrate, and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If the permittee conducts multiple performance tests, the permittee must set the minimum liquid flowrate and pressure drop operating limits at the highest minimum values established during the performance tests.
- 77) For an electrostatic precipitator, the permittee must establish the minimum voltage and secondary current (or total power input), as defined in §63.7575, as an operating limits during the three run performance test.
- 78) For a dry scrubber, the permittee must establish the minimum sorbent injection rate, as defined in §63.7575, as an operating limit during the three-run performance test.
- 79) For a fabric filter, the operating limit for boilers or process heaters with fabric filters that choose to demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in §63.7525, and that each fabric filter must be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period.
- 80) If the permittee elect to demonstrate compliance with an applicable emission limit through fuel analysis, the permittee must conduct fuel analyses according to §63.7521 and follow the procedures in §63.7530(d)(1) through (5).
- 81) If the permittee burn more than one fuel type, the permittee must determine the fuel mixture could be burned in the boiler or process heater that would result in the maximum emission rates of the pollutants that the permittee elect to demonstrate compliance through fuel analysis.
- 82) The permittee must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided z-statistic test described in Equation 8.

$$P_{90} = \text{mean} + (SD \times t) \quad (\text{Eq. 8})$$

Where:

P₉₀ = 90th percentile confidence level pollutant concentration, in pounds per million Btu.

mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to §63.7521, in units of pounds per million Btu.

SD = Standard deviation of the pollutant concentration in the fuel samples analyzed according to §63.7521, in units of pounds per million Btu.

t = t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table.

- 83) To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that the permittee calculate for the boiler or process heater using Equation 9 must be less than the applicable emission limit for HCl.

$$HCl = \sum_{i=1}^n [(C_{i90})(Q_i)(1.028)] \quad (\text{Eq. 9})$$

Where:

HCl = HCl emission rate from the boiler or process heater in units of pounds per million Btu.

C_{i90} = 90th percentile confidence level concentration of chlorine in fuel type, i , in units of pounds per million Btu as calculated according to Equation 8.

Q_i = Fraction of total heat input from fuel type, i , based on the fuel mixture that has the highest content of chlorine. If the permittee does not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Q_i .

n = Number of different fuel types burned in the boiler or process heater for the mixture that has the highest content of chlorine.

1.028 = Molecular weight ratio of HCl to chlorine.

- 84) To demonstrate compliance with the applicable emission limit for TSM, the TSM emission rate that is calculated for the boiler or process heater using Equation 10 must be less than the applicable emission limit for TSM.

$$TSM = \sum_{i=1}^n [(M_{i90})(Q_i)] \quad (\text{Eq. 10})$$

Where:

TSM = TSM emission rate from the boiler or process heater in units of pounds per million Btu.

M_{i90} = 90th percentile confidence level concentration of TSM in fuel, i , in units of pounds per million Btu as calculated according to Equation 8.

Q_i = Fraction of total heat input from fuel type, i , based on the fuel mixture that has the highest content of total selected metals. If Permittee do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Q_i .

n = Number of different fuel types burned in Your boiler or process heater for the mixture that has the highest content of TSM.

- 85) To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that the permittee calculates for the boiler or process heater using Equation 11 must be less than the applicable emission limit for mercury.

$$Mercury = \sum_{i=1}^n (HG_{i90})(Q_i) \quad (\text{Eq. 11})$$

Where:

Mercury = Mercury emission rate from the boiler or process heater in units of pounds per million Btu.

HG_{i90} = 90th percentile confidence level concentration of mercury in fuel, i , in units of pounds per million Btu as calculated according to Equation 8.

Q_i = Fraction of total heat input from fuel type, i , based on the fuel mixture that has the highest mercury content. If unit does not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Q_i .

n = Number of different fuel types burned in the boiler or process heater for the mixture that has the highest mercury content.

Monitoring:

- 1) If the permittee has an applicable opacity operating limit, the permittee must install, operate, certify and maintain each continuous opacity monitoring system (COMS) according to the procedures in §63.7525(b)(1) through (7) by the compliance date specified in §63.7495.
 - a) Each COMS must be installed, operated, and maintained according to PS 1 of 40 CFR part 60, appendix B.
 - b) The permittee must conduct a performance evaluation of each COMS according to the requirements in §63.8 and according to PS 1 of 40 CFR part 60, appendix B.
 - c) As specified in §63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.
 - d) The COMS data must be reduced as specified in §63.8(g)(2).
 - e) The permittee must include in the site specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in §63.8(d). At a minimum, the monitoring plan must

- include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.
- f) The permittee must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of §63.8(e). Identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.
 - g) The permittee must determine and record all the 6-minute averages (and 1-hour block averages as applicable) collected for periods during which the COMS is not out of control.
- 2) If the permittee have an operating limit that requires the use of a CMS, the permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in §63.7525(c)(1) through (5) by the compliance date specified in §63.7495.
- a) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. The permittee must have a minimum of four successive cycles of operation to have a valid hour of data.
 - b) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), The permittee must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
 - c) For purposes of calculating data averages, the permittee must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. The permittee must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.
 - d) Determine the 3-hour block average of all recorded readings, except as provided in paragraph (c)(3) of this section.
 - e) Record the results of each inspection, calibration, and validation check.
- 3) If the permittee have an operating limit that requires the use of a flow measurement device, the permittee must meet the requirements in §63.7525(c) and (d)(1) through (4).
- a) Locate the flow sensor and other necessary equipment in a position that provides a representative flow.
 - b) Use a flow sensor with a measurement sensitivity of 2 percent of the flow rate.
 - c) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.
 - d) Conduct a flow sensor calibration check at least semiannually.
- 4) If the permittee have an operating limit that requires the use of a pressure measurement device, the permittee must meet the requirements in §63.7525(c) and (e)(1) through (6).
- a) Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure.
 - b) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.
 - c) Use a gauge with a minimum tolerance of 1.27 centimeters of water or a transducer with a minimum tolerance of 1 percent of the pressure range.
 - d) Check pressure tap pluggage daily.
 - e) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.
 - f) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.
- 5) If the permittee have an operating limit that requires the use of a pH measurement device, the permittee must meet the requirements in §63.7525(c) and (f)(1) through (3).
- a) Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.
 - b) Ensure the sample is properly mixed and representative of the fluid to be measured.
 - c) Check the pH meter's calibration on at least two points every 8 hours of process operation.
- 6) If the permittee have an operating limit that requires the use of equipment to monitor voltage and secondary current (or total power input) of an electrostatic precipitator (ESP), the permittee must use voltage and secondary current monitoring equipment to measure voltage and secondary current to the ESP.

- 7) If the permittee have an operating limit that requires the use of equipment to monitor sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), the permittee must meet the requirements in §63.7525(c) and (h)(1) through (3).
 - a) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.
 - b) Install and calibrate the device in accordance with manufacturer's procedures and specifications.
 - c) At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.
- 8) If the permittee elects to use a fabric filter bag leak detection system to comply with the requirements of subpart DDDDD, the permittee must install, calibrate, maintain, and continuously operate a bag leak detection system as specified in §63.7525(i)(1) through (8).
 - a) The permittee must install and operate a bag leak detection system for each exhaust stack of the fabric filter.
 - b) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA-454/R-98-015, September 1997.
 - c) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.
 - d) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.
 - e) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.
 - f) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.
 - g) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.
 - h) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.
- 9) The permittee must monitor and collect data according to §63.7535 and the site specific monitoring plan required by §63.7505(d).
- 10) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.
- 11) The permittee may not use data recorded during monitoring malfunctions, associated repairs, or required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The permittee must use all the data collected during all other periods in assessing the operation of the control device and associated control system. Boilers and process heaters that have an applicable carbon monoxide work practice standard and are required to install and operate a CEMS, may not use data recorded during periods when the boiler or process heater is operating at less than 50 percent of its rated capacity.

Recordkeeping:

- 1) The permittee must keep records according §63.7555(a)(1) through (3).
 - a) A copy of each notification and report that the permittee submitted to comply with subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in §63.10(b)(2)(xiv).
 - b) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
 - c) Records of performance tests, fuel analyses, or other compliance demonstrations, performance evaluations, and opacity observations as required in §63.10(b)(2)(viii).
- 2) For each CEMS, CPMS, and COMS, the permittee must keep records according to §63.7555(b)(1) through (5).
 - a) Records described in §63.10(b)(2) (vi) through (xi).
 - b) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in §63.6(h)(7)(i) and (ii).

- c) Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).
 - d) Request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i).
 - e) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.
- 3) The permittee must keep the records required in Table 8 (see Attachment L) to subpart DDDDD including records of all monitoring data and calculated averages for applicable operating limits such as opacity, pressure drop, carbon monoxide, and pH to show continuous compliance with each emission limit, operating limit, and work practice standard that applies to the permittee.
- 4) For each boiler or process heater subject to an emission limit, the permittee must also keep the records in §63.7555(d)(1) through (5).
- a) The permittee must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.
 - b) The permittee must keep records of monthly hours of operation by each boiler or process heater. This requirement applies only to limited-use boilers and process heaters.
 - c) A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 5 of §63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 9 of §63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. The permittee can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the permittee must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.
 - d) A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 6 of §63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 10 of §63.7530, that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. The permittee can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the permittee must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.
 - e) A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 7 of §63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 11 of §63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. The permittee can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the permittee must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.
- 5) If the boiler or process heater is subject to an emission limit or work practice standard in Table 1 to subpart DDDDD and has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories, the permittee must keep the records in §63.7555(e)(1) and (2).
- a) A copy of the federally enforceable permit that limits the annual capacity factor of the source to less than or equal to 10 percent.
 - b) Fuel use records for the days the boiler or process heater was operating.
- 6) Records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).
- 7) As specified in §63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

- 8) The permittee must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee can keep the records off site for the remaining 3 years.

Reporting:

- 1) The permittee must submit all of the notifications in §§63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to the permittee by the dates specified.
- 2) If the permittee is required to conduct a performance test and must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.
- 3) If the permittee is required to conduct an initial compliance demonstration as specified in §63.7530(a), the permittee must submit a Notification of Compliance Status according to §63.9(h)(2)(ii). For each initial compliance demonstration, the permittee must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to §63.10(d)(2). The notification of Compliance Status report must contain all the information specified in §63.7545(e)(1) through (9), as applicable.
 - a) A description of the affected source(s) including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source description of the fuel(s) burned, and justification for the fuel(s) burned during the performance test.
 - b) Summary of the results of all performance tests, fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits.
 - c) Identification of whether the permittee is complying with the particulate matter emission limit or the alternative total selected metals emission limit.
 - d) Identification of whether the permittee plans to demonstrate compliance with each applicable emission limit through performance testing or fuel analysis.
 - e) Identification of whether the permittee plans to demonstrate compliance by emissions averaging.
 - f) A signed certification that the permittee has met all applicable emission limits and work practice standards.
 - g) A summary of the carbon monoxide emissions monitoring data and the maximum carbon monoxide emission levels recorded during the performance test to show that the permittee have met any applicable work practice standard in Table 1 to subpart DDDDD.
 - h) If the permittee had a deviation from any emission limit or work practice standard, the permittee must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.
- 4) The permittee must submit each report in Table 9 to subpart DDDDD that applies to the permittee.
- 5) Unless the Director has approved a different schedule for submission of reports under §63.10(a), the permittee must submit each report by the date in Table 9 to subpart DDDDD and according to the requirements in §63.7550(b)(1) through (5).
 - a) The first compliance report must cover the period beginning on the compliance date that is specified for the affected source in §63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for the source in §63.7495.
 - b) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for the source in §63.7495.
 - c) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
 - d) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
 - e) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the permittee may submit the first and subsequent compliance

reports according to the dates the permitting authority has established instead of according to the dates in §63.7550(b)(1) through (4).

- 6) The compliance report must contain the information required in §63.7550(c)(1) through (11).
 - a) Company name and address.
 - b) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
 - c) Date of report and beginning and ending dates of the reporting period.
 - d) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.
 - e) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.
 - f) A signed statement indicating that the permittee burned no new types of fuel. Or, if the permittee did burn a new type of fuel, the permittee must submit the calculation of chlorine input, using Equation 5 of §63.7530, that demonstrates that the source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or the permittee must submit the calculation of HCl emission rate using Equation 9 of §63.7530 that demonstrates that the source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If the permittee burned a new type of fuel, the permittee must submit the calculation of TSM input, using Equation 6 of §63.7530, that demonstrates that the source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or the permittee must submit the calculation of TSM emission rate using Equation 10 of §63.7530 that demonstrates that the source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If the permittee burned a new type of fuel, the permittee must submit the calculation of mercury input, using Equation 7 of §63.7530, that demonstrates that Your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or the permittee must submit the calculation of mercury emission rate using Equation 11 of §63.7530 that demonstrates that the source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).
 - g) If the permittee wish to burn a new type of fuel and the permittee can not demonstrate compliance with the maximum chlorine input operating limit using Equation 5 of §63.7530, the maximum TSM input operating limit using Equation 6 of §63.7530, or the maximum mercury input operating limit using Equation 7 of §63.7530, the permittee must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.
 - h) If the permittee had a startup, shutdown, or malfunction during the reporting period and the permittee took actions consistent with the SSMP, the compliance report must include the information in §63.10(d)(5)(i).
 - i) If there are no deviations from any emission limits or operating limits in subpart DDDDD that apply to the permittee, and there are no deviations from the requirements for work practice standards in subpart DDDDD, a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.
 - j) If there were no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out of control during the reporting period.
- 7) For each deviation from an emission limit or operating limit in subpart DDDDD and for each deviation from the requirements for work practice standards in subpart DDDDD that occurs at an affected source where Permittee are not using a CMSs to comply with that emission limit, operating limit, or work practice standard, the compliance report must contain the information in §63.7550(c)(1) through (10) and the information required in §63.7550(d)(1) through (4). This includes periods of startup, shutdown, and malfunction.
 - a) The total operating time of each affected source during the reporting period.

- b) A description of the deviation and which emission limit, operating limit, or work practice standard from which the permittee deviated.
 - c) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.
 - d) A copy of the test report if the annual performance test showed a deviation from the emission limit for particulate matter or the alternative TSM limit, a deviation from the HCl emission limit, or a deviation from the mercury emission limit.
- 8) For each deviation from an emission limitation and operating limit or work practice standard in subpart DDDDD occurring at an affected source where the permittee are using a CMS to comply with that emission limit, operating limit, or work practice standard, the permittee must include the information in §63.7550(c)(1) through (10) and the information required in §63.7550(e)(1) through (12). This includes periods of startup, shutdown, and malfunction and any deviations from the site-specific monitoring plan as required in §63.7505(d).
- a) The date and time that each malfunction started and stopped and description of the nature of the deviation (i.e., what the permittee deviated from).
 - b) The date and time that each CMS was inoperative, except for zero (low level) and high-level checks.
 - c) The date, time, and duration that each CMS was out of control, including the information in §63.8(c)(8).
 - d) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
 - e) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
 - f) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
 - g) A summary of the total duration of CMSs downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.
 - h) An identification of each parameter that was monitored at the affected source for which there was a deviation, including opacity, carbon monoxide, and operating parameters for wet scrubbers and other control devices.
 - i) A brief description of the source for which there was a deviation.
 - j) A brief description of each CMS for which there was a deviation.
 - k) The date of the latest CMS certification or audit for the system for which there was a deviation.
 - l) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.
- 9) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in subpart DDDDD in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 to subpart DDDDD along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in subpart DDDDD, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

EU0060 – Boiler 6			
Emission Unit	Description	Manufacturer/Model #	2004 EIQ Reference #
EU0060	Boiler #6, ESP, and Stack, Maximum Design Rate 980 MMBTU/Hr, Bituminous/ and sub-bituminous blend coal Primary Fuel – Coal (high or medium sulfur blended w/ low sulfur), Secondary Fuel – Natural Gas	Date of Manufacture – 1967	EP06 (2004)

PERMIT CONDITION EU0060-001

10 CSR 10-2.040 Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of 0.15 pounds per million BTU of heat input.
- 2) The emission unit shall be limited to burning coal (high or medium sulfur blended w/ low sulfur), natural gas, tire derived fuels, and propane

Operational Limitation/Equipment Specifications:

- 1) The Electrostatic Precipitator (ESP) shall be equipped with an alarm which indicates failure of the power supply. The alarm shall be accompanied with a monitoring device which will continuously monitor transformer-rectifier (T-R) set failure and loss of rapper/vibrator power supply.
- 2) The ESP shall be operated within the parameters outlined in the operating and maintenance plan when the main boiler flame is on.
- 3) An operation and maintenance plan shall be developed in accordance with manufacturer specifications for the ESP.

Monitoring:

- 1) Periodic monitoring is not required during periods of time greater than one day in which the source does not operate.
- 2) The permittee shall keep records of all particulate matter stack tests performed on the emission unit.
- 3) The permittee shall monitor four specific parameters to indicate the performance of the ESP once per week during which the emission unit is operational:
 - a) Primary and secondary voltage,
 - b) Primary and secondary current,
 - c) Sparking rate, and
 - d) Number of fields on-line.
- 4) Inspect rapper operation, T-R set operation, plate electrode alignment, collection surfaces for fouling, mechanical condition of the T-R set, internal structural components, and ash removal systems in accordance with the operation and maintenance plan.
- 5) The permittee shall take corrective action during periods in which operational conditions of the ESP are outside the parameters established in the operation and maintenance plan. A corrective action includes an investigation of the reason for the excursion, evaluation of the problem that created the excursion and necessary follow-up action to return the emission unit to within the operational range allowed by the operation and maintenance plan. Corrective action procedures will be devised and implemented on the occurrence of an abnormal condition. The appropriate measures for remediation will be implemented in a timely manner.

Recordkeeping:

- 1) The permittee shall maintain a written or electronic copy of all inspections and any action resulting from the inspection. (see Attachment C – This log or an equivalent created by the permittee must be used to certify compliance with this requirement.)
- 2) All instrument calibration shall be recorded.
- 3) Maintain a spare parts inventory by a computerized inventory or other Administrator approved management system.
- 4) The permittee shall maintain a record of the initial stack testing and any other subsequent testing or test information for particulate matter required from this rule.
- 5) The permittee shall maintain records of any monitoring or control equipment malfunctions.
- 6) All records shall be maintained for five years. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or operating parameter range listed above.
- 2) Reports of any deviations from monitoring other than the operating parameter range, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

PERMIT CONDITION EU0060-002

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

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 an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA 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.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment B1 or B2), 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 B3)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment B4)
- 4) Attachments B1 or B2, B3 and B4 contain logs including these recordkeeping 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 Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

Permit Condition EU0060-003

10 CSR 10-6.260¹
 Restriction of Emission of Sulfur Compounds
 Consent Agreement

Emission Limitation:

- 1) The permittee shall not cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of 1,400 lbs SO₂/hr actual heat input averaged on a 24-hour rolling block average basis (Consent Agreement). (equivalent to 1.43 lbs. SO₂/mmBtu – see statement of basis for calculation)
- 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.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m ³	1-hour average not to be exceeded more than once in any 2 consecutive days

Operational Limitation/Equipment Specifications:

- 1) The emission unit shall be limited to fuel oil with a sulfur content of no more than 0.05% sulfur by weight (Consent Agreement)
- 2) The emission unit shall be limited to coal (high or medium sulfur blended w/low sulfur), natural gas and Propane (Consent Agreement).

¹ 10 CSR 10-6.260(4) of August 30, 1996 version and 10 CSR 10-6.260(3)(B) of May 30, 2004 version is state-only.

- 3) Propane may be burned in place of No. 2 oil or coal for Boiler #6, for light off and flame stabilization during periods of natural gas curtailment and for testing of the propane combustion system.

Monitoring:

- 1) Compliance monitoring for the 24-hour daily average for Boiler #6 consists of the following procedures. The 24-hour daily block average is defined as a midnight to midnight block average, which includes SO₂ emission rates for only the hours during which the unit was operating. The variable table located in Appendix 1 should be used when making these calculations:

$$\left[\frac{\sum_{hour=1}^{24} \left(\frac{\#SO_2}{hour} \right)}{\sum_{hour=1}^{24} (operating\ time\ hours)} \right] \leq 1400 \left(\frac{\#SO_2}{hour} \right) \text{ (Consent Agreement)}$$

- 2) Compliance with the emission rate of 1,400 lbs SO₂/hr for boiler #6 will be determined by the continuous emissions monitoring system (CEMS) that is currently operated in accordance with 40 CFR Part 75 (Consent Agreement). Attachment E or an equivalent recordkeeping sheet shall be used to record all information required by this rule and should be available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) Records of the sampling and analysis of the coal blending (including the sulfur and heat content) shall be kept on file at the Installation for a period of five years from the date of sampling. (Consent Agreement)
- 4) 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 (natural gas or fuel oil) and verify the sulfur content (see Attachments D and E). Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 5) If the requirements of condition 4 can not 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.
- 6) Other methods approved by the permitting agency in advance may be used to verify compliance.

Recordkeeping:

- 1) If monitoring option 4 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) Attachments D and E contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 3) If monitoring option 5 is used to verify compliance, then the permittee shall maintain records on the premises of all source testing performed.
- 4) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 5) All records shall be maintained for five years.

Reporting:

The permittee shall report to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 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 EU0060-004

10 CSR 10-6.270

Acid Rain Source Permits Required

Emission Limitation:

The permittee shall obtain an Acid Rain Source Permit for boiler #6 pursuant to Title IV of the Clean Air Act. The permittee submitted a Phase II permit application on December 20, 1995 under 10 CSR 10-6.270, "Acid Rain Source Permits Required." Nitrogen Oxide (NO_x) and Sulfur dioxide (SO₂) limitations are referenced in the installation's Phase II permit. The Phase II permit (MDNR permit #OP2006-048, ORIS Code 2098) was issued on July 27, 2006 and expires on December 31, 2009.

Monitoring/Recordkeeping:

The permittee shall retain the most current acid rain permit issued to this installation on-site and shall immediately make such permit available to any Missouri Department of Natural Resources' personnel upon request.

Permit Condition EU0060-005

10 CSR 10-6.350

Emission Limitations and Emissions Trading of Oxides of Nitrogen

Emission Limitation:

- 1) Beginning May 1, 2004, the permittee shall limit emissions of NO_x from boiler #6 to the rate of 0.68 lbs. NO_x /million British thermal units (mmBtu) of heat input during the control period, provided that the unit is a cyclone EGU and burns tire-derived fuel in a quantity of at least 100,000 PTEs per year.²
- 2) In lieu of complying with the above emission limit, the permittee may comply through the NO_x emissions trading program under 10 CSR 10-6.350(3)(B).
 - a) Compliance with 10 CSR 10-6.350 shall not relieve the permittee of the responsibility to comply fully with applicable provisions of the Air Conservation Law and rules or any other requirements under local, state or federal law. Specifically, compliance with 10 CSR 10-6.350 shall not supersede the permit conditions previously established under 10 CSR 10-6.060 or 10 CSR 10-6.065.

Banking/Trading:

- 1) NO_x authorized account representative.
 - a) Each affected unit shall have only one NO_x authorized account representative with respect to all matters under the NO_x trading program. Each affected unit may have only one alternate NO_x authorized account representative who may act on behalf of the NO_x authorized account representative.
 - b) A NO_x authorized account representative may be responsible for multiple units at an installation or within a system of installations with the same owner.
 - c) The department will act on a valid submission made on behalf of the permittee of an affected unit only if the submission has been made, signed and certified by the NO_x authorized account representative or the alternate NO_x authorized account representative.
- 2) Control Period NO_x Allowances.
 - a) By October 31 following each control period, each NO_x authorized account representative shall submit to the department the actual total control period heat input and actual average emission rate in a compliance report consistent with 10 CSR 10-6.350(4) for each affected NO_x unit.
 - b) By November 15th following each control period, the department will issue a notice to each NO_x authorized account representative of the actual NO_x allowances recorded in the unit compliance account for each affected NO_x unit.

² The period beginning May 1 of a calendar year and ending on September 30 of the same calendar year.

- 3) By the end of the NO_x allowance transfer deadline³, each NO_x unit shall have sufficient NO_x allowances in their compliance account to allow for deductions in 10 CSR 10-6.350(3)(B)4.B.
 - a) The NO_x allowances are available to be deducted for compliance with a unit's NO_x emissions limitation for a control period in a given year only if the NO_x allowances:
 - i) Were allocated for a control period in a prior year or the same year; and
 - ii) Are held in the unit's compliance account or the unit's overdraft account as of the NO_x allowance transfer deadline for that control period.
 - b) The NO_x authorized account representative may identify by serial number the NO_x allowances to be deducted from the unit's compliance account under 10 CSR 10-6.350(3)(B)4.B., (3)(B)4.D., or (3)(B)4.E. Such identification will be made in the compliance certification report submitted in accordance with 10 CSR 10-6.350(4)(A)1.
- 4) NO_x allowances may be banked for future use or transfer into a compliance account or an overdraft account, as follows:
 - a) Any NO_x allowance that is held in a compliance account or an overdraft account, will remain in such account until the NO_x allowance is deducted or transferred under 10 CSR 10-6.350(3)(B)4 – (3)(B)7.
 - b) The director will designate, as a banked NO_x allowance, any NO_x allowance that remains in a compliance account or an overdraft account after the director has made all deductions for a given control period from the compliance account or overdraft account pursuant to 10 CSR 10-6.350(3)(B)4.
- 5) Each year, starting in 2005, after the director has completed the designation of banked NO_x allowances under 10 CSR 10-6.350(3)(B)5.A.(II) and before May 1 of the year, the department will determine the extent to which banked NO_x allowances may be used for compliance in the control period for the current year.
- 6) Banked NO_x allowances made available for use in 10 CSR 10-6.350(3)(B)5.B.(II) and (3)(B)5.B.(III) may be traded from the control region for which 10 CSR 10-6.350(3)(A)3.⁴ and (3)(A)4.⁵ are applicable to the control region for which 10 CSR 10-6.350(3)(A)1.⁶ is applicable on a one and one-half to one (1.5:1) basis.
- 7) Banked NO_x allowances made available for use in 10 CSR 10-6.350(3)(B)5.B.(II) and (3)(B)5.B.(III) may be traded from the control region for which 10 CSR 10-6.350(3)(A)1.⁴, (3)(A)3.², and (3)(A)4.³ are applicable to the control region for which 10 CSR 10-6.350(3)(A)2.⁷ is applicable on a one and one-half to one (1.5:1) basis.
- 8) Banked NO_x allowances made available for use in 10 CSR 10-6.350(3)(B)5.B.(II) and (3)(B)5.B.(III) may be traded on a one to one (1:1) basis unless otherwise specified in 10 CSR 10-6.350(3)(B)5.B.(IV)(b) and (3)(B)5.B.(IV)(c).

Monitoring:

- 1) Compliance shall be measured during the control period.
- 2) All valid data shall be used for calculating NO_x emissions rates.
- 3) Any coal-affected unit subject to this rule shall install, certify, operate, maintain, and quality assure a NO_x and diluent CEMS pursuant to the requirements in 40 CFR part 75;

³ Close of business on December 31 following the control period or, if December 31 is not a business day, close of business on the first business day thereafter and is the deadline by which NO_x allowances may be submitted for recording in an affected unit's compliance account, or the overdraft account of the installation where the unit is located.

⁴ Cyclone EGUs located in the counties of Buchanan, Jackson, Jasper or Randolph.

⁵ EGUs, other than cyclone EGUs, located in any county not identified in paragraph (3)(A)1. or (3)(A)2. of 10-6.350.

⁶ EGUs located in the counties of Bollinger, Butler, Cape Girardeau, Carter, Clark, Crawford, Dent, Dunklin, Gasconade, Iron, Lewis, Lincoln, Madison, Marion, Mississippi, Montgomery, New Madrid, Oregon, Pemiscot, Perry, Phelps, Pike, Ralls, Reynolds, Ripley, St. Charles, St. Francois, Ste. Genevieve, Scott, Shannon, Stoddard, Warren, Washington and Wayne.

⁷ EGUs located in the City of St. Louis and the counties of Franklin, Jefferson and St. Louis.

Recordkeeping:

- 1) The permittee shall maintain records of the following:
 - a) Total fuel consumed during the control period;
 - b) The total heat input for each emissions unit during the control period;
 - c) Reports of all stack testing conducted to meet the requirements of 10 CSR 10-6.350;
 - d) All other data collected by a CEMS necessary to convert the monitoring data to the units of the applicable emission limitation;
 - e) All performance evaluations conducted in the past year;
 - f) All monitoring device calibration checks;
 - g) All monitoring system, monitoring device and performance testing measurements;
 - h) Records of adjustments and maintenance performed on monitoring systems and devices; and
 - i) A log identifying each period during which the CEMS or alternate procedure was inoperative, except for zero (0) and span checks, and the nature of the repairs and adjustments performed to make the system operative.
 - j) Total number of PTEs burned per year.
- 2) All records must be kept on-site for a period of five years and made available to the department upon request.

Reporting:

- 1) Each unit must submit an account certificate of representation no later than January 1, 2004 or December 31 of the year in which 10 CSR 10-6.350 becomes applicable for units installed after January 1, 2004.
- 2) Projected NO_x allowances.
 - a) By March 1, 2004, the NO_x authorized account representative for each affected unit shall submit to the department a report containing the following:
 - i) The projected control period NO_x emission rate for each affected unit;
 - ii) The average of the three (3) most recent control period heat inputs, unless those three (3) periods are not representative of normal operation; and
 - iii) A plan identifying the methodology for compliance with the emission limitations of 10 CSR 10-6.350.
 - b) The department will review each report and make any amendments within 15 working days.
 - c) The department will develop a summary of projected NO_x allowances on a unit by unit and statewide basis for distribution on or before May 1 of each year.
- 3) NO_x authorized account representatives must request all of the ERCs needed from the compliance set-aside account for the 2004 and 2005 control periods by February 28, 2004. The request for ERCs shall include the following information:
 - a) The owner and operator;
 - b) The NO_x authorized account representative;
 - c) The NO_x unit identification number and name;
 - d) The number of ERCs being requested; and
 - e) The overdraft or compliance account number.
- 4) The NO_x authorized account representatives seeking the recording of a NO_x allowance transfer shall submit the transfer request to the director. To be considered correctly submitted, the NO_x allowance transfer shall include the following elements in a format specified by the director:
 - a) The numbers identifying both the transferor and transferee accounts;
 - b) A specification by serial number of each NO_x allowance to be transferred; and
 - c) The printed name and signature of the NO_x authorized account representative of the transferor account and the date signed.
- 5) When a NO_x opt-in unit becomes an affected unit, the NO_x authorized account representative shall notify the department in writing of such change in the NO_x opt-in unit's regulatory status within 30 days of such change.
- 6) A compliance certification report for each affected unit shall be submitted to the department by October 31 following each control period. The report shall include:
 - a) The owner and operator;
 - b) The NO_x authorized account representative;

- c) NO_x unit name, compliance and overdraft account numbers;
 - d) NO_x emission rate limitation (lb/mmBtu);
 - e) Actual NO_x emission rate (lb/mmBtu) for the control period;
 - f) Actual heat input (mmBtu) for the control period. The unit's total heat input for the control period in each year will be determined in accordance with 10 CSR 10-6.350(5);
 - g) Actual NO_x mass emissions (tons) for the control period.
- 7) Any unit with valid continuous emission monitoring system (CEMS) data for the control period must use that data to determine compliance with the provisions of this rule. The permittee which performs non-CEMS testing to demonstrate compliance of a unit subject to 10 CSR10-6.350(3) shall submit:
- a) A control period report identifying monthly fuel usage and monthly total heat input by December 31 of the same year as the control period; and
 - b) A written report of all stack tests completed after controls are effective to the department within 60 days after completion of sample and data collection.
- 8) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which causes an exceedance of this regulation.

EU0070 – Gas Turbine 5 (Combustion Turbine 5)			
Emission Unit	Description	Manufacturer/Model #	2004 EIQ Reference #
EU0070	Gas Turbine #5, Stack & waste heat boiler #7, Gas Turbine, Maximum Design Rate (Million Btu/Hr) 867 Primary Fuel – Natural Gas Secondary Fuel – No. 2 Fuel Oil	Date of Manufacture – 1974	EP07 (2004)

PERMIT CONDITION EU0070-001 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds, May 25, 2001 Consent Agreement

Emission Limitation:

- 1) The permittee shall not cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of 0.0511 pounds of sulfur dioxide per million BTUs actual heat input averaged on a 24-hour daily block average basis (Consent Agreement).
- 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.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m ³	1-hour average not to be exceeded more than once in any 2 consecutive days

Operational Limitation/Equipment Specifications:

- 1) The emission unit shall be limited to fuel oil with a sulfur content of no more than 0.05% sulfur by weight. (Consent Agreement)
- 2) The emission units shall be limited to natural gas, No. 2 fuel oil. (Consent Agreement)

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of the fuel type used verifying a sulfur content less than 0.05% by weight. (Consent Agreement)
- 2) Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable. If this cannot be accomplished then compliance to the emission limitations shall be determined by source testing and shall be accomplished as specified in 10 CSR 10-6.030(6) for sulfur dioxide emissions and 10 CSR 10-6.040 for measuring ambient sulfur compound concentrations. Other methods approved by the staff director in advance may be used.
- 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:

- 1) The following deliverables are to be submitted to the MDNR Air pollution Control Program, Enforcement Section on a quarterly basis no later than 30 days after the end of the previous quarter:
 - a) Fuel certification shall consist of the following:
 - i. Submittal of a supplier Certificate for fuel oil sulfur content (see Appendix 1). The certificate is completed by the fuel supplier and certifies the fuel is compliant, (Consent Agreement)
 - ii. Submittal of a Certificate of Fuel Sulfur Content (see Appendix 1). This certifies that only compliant fuel was charged to boilers 104 and combustion turbines 5-7 and shall be completed by Aquila. (Consent Agreement)
- 2) The permittee shall report any change of fuel type to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65101 within ten (10) days of the switch of fuel types.
- 3) The permittee shall report to the Air Pollution Control Enforcement Section no later than ten (10) days after any exceedance of 10 CSR 10-6.260 demonstrated by the appropriate recordkeeping forms.

Permit Condition EU0070-002

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

Emission Limitation:

- 1) In order to qualify for the exemption under 10 CSR 10-6.350(1)(B)2., the permittee shall operate emission unit 0070 less than 400 hours per control period² averaged over the three most recent years of operation.
- 2) Compliance with this rule shall not relieve the permittee of the responsibility to comply fully with applicable provisions of the Air Conservation Law and rules or any other requirements under local, state or federal law. Specifically, compliance with this rule shall not violate the permit conditions previously established under 10 CSR 10-6.060 or 10 CSR 10-6.065.

Monitoring:

- 1) The permittee shall install and operate a non-resettable hour meter or determine the hours of operation for emission unit 0070 during the control period.

Recordkeeping:

- 1) The permittee shall maintain records of the total operating hours during which fuel is consumed for emission unit 0070 during the control period.

Reporting:

- 1) If the exemption limit above is exceeded, the exemption shall not apply and the permittee must notify the staff director or designee within 30 days.
- 2) If the permittee can demonstrate to the staff director or designee that the exemption limit was exceeded due to emergency operations or uncontrollable circumstances, the exemption shall apply.

EU0080 and EU0090 – No. 6 Jet Engine (Combustion Turbine 6) and No. 7 Jet Engine (Combustion Turbine 7)			
Emission Unit	Description	Manufacturer/Model #	2004 EIQ Reference #
EU0080 and EU 0090	EU0080 – No. 6 Jet Engine, 275 Million BTU/Hr EU0090 – No. 7 Jet Engine, 296 Million BTU/Hr Primary Fuel – No. 2 Fuel Oil Secondary Fuel – Natural Gas	Date of Manufacture – 1968	EP08 and EP09 (2004)

Permit Condition EU0080-001 and EU0090-001

10 CSR 10-6.060
 Construction Permit Required #0190-009

Emission Limitation:

The permittee must operate Jet Turbines #6 and #7 in such a manner that their combined emissions are below the deminimis annual rates (NO₂ = 40.0 tons, SO₂ = 40.0 tons, VOC = 40.0 tons, CO = 100.0 tons, PM₁₀ 15.0 tons) (Special Condition #1)

² The period beginning May 1 of a calendar year and ending on September 30 of the same calendar year.

Monitoring/Recordkeeping:

The permittee is required to demonstrate, on an annual basis that the Jet Turbines #6 and #7, in conjunction, operate at annual pollutant emission rates which are below the respective deminimis annual rates. This demonstration shall be in the form of an annual compliance report submitted to the Air Pollution Control Program. (Special Condition #2)

Reporting:

- 1) The permittee shall submit to the Air Pollution Control Program an annual report based on the amount (gallons of No. 2 fuel oil and cubic feet of natural gas) of fuel consumed. The annual report shall be submitted by the 30th day of January, and contain information for the immediately preceding calendar year. This report shall include the values of the annual emission levels of sulfur dioxide and nitrogen oxides (expressed as nitrogen dioxide), and shall include the data, calculations, and emission factors used to determine and substantiate the values of these emission levels (Special Condition #2).
- 2) The permittee, shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later ten (10) days after the end of the month, if records indicate that emissions from the turbines exceed the allowed emission rates.

PERMIT CONDITION EU0080-2 and EU0090-002
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds,
May 25, 2001 Consent Agreement

Emission Limitation:

- 1) The permittee shall not cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of 0.0511 pounds of sulfur dioxide per million BTUs actual heat input averaged on a 24-hour daily block average basis (Consent Agreement).
- 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.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m ³	1-hour average not to be exceeded more than once in any 2 consecutive days

Operational Limitation/Equipment Specifications:

The emission unit shall be limited to NO. 2 fuel oil with a sulfur content of no more than 0.05% sulfur by weight and pipeline grade natural gas. (Consent Agreement)

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of the fuel type used verifying a sulfur content less than 0.05% by weight. (Consent Agreement)
- 2) Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable. If this cannot be accomplished then compliance to the emission limitations shall be determined by source testing and shall be accomplished as specified in 10 CSR 10-6.030(6) for sulfur dioxide emissions and 10 CSR 10-6.040 for measuring ambient sulfur compound concentrations. Other methods approved by the staff director in advance may be used.
- 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:

- 1) The following deliverables are to be submitted to the MDNR Air pollution Control Program, Enforcement Section on a quarterly basis no later than 30 days after the end of the previous quarter:
 - a) Fuel certification shall consist of the following:
 - i. Submittal of a supplier Certificate for fuel oil sulfur content (see Appendix 1). The certificate is completed by the fuel supplier and certifies the fuel is compliant, (Consent Agreement)
 - ii. Submittal of a Certificate of Fuel Sulfur Content (see Appendix 1). This certifies that only compliant fuel was charged to boilers 1-4 and combustion turbines 5-7 and shall be completed by Aquila. (Consent Agreement)
- 2) The permittee shall report any change of fuel type to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65101 within ten (10) days of the switch of fuel types.
- 3) The permittee shall report to the Air Pollution Control Enforcement Section no later than ten (10) days after any exceedance of 10 CSR 10-6.260 demonstrated by the appropriate recordkeeping forms.

EU0260A, EU0260B, EU0270A and EU0270B Mechanical discharge exhausters located on top of the Fly Ash Silo Bin Vent Filters located on top of the Fly Ash Silo
--

EU0260A Mechanical discharge exhauster located on top of the Fly Ash Silo	
General Description:	Ash is discharged into the silo and the clean air to the in-line filters then to the mechanical exhausters.
Manufacturer/Model #:	United conveyor co.
IEQ Reference # (Year):	2000

EU0260B Mechanical discharge exhauster located on top of the Fly Ash Silo	
General Description:	Ash is discharged into the silo and the clean air to the in-line filters then to the mechanical exhausters.
Manufacturer/Model #:	N/A
IEQ Reference # (Year):	2000

EU0270A Bin Vent Filter Located on top of the Fly Ash Silo	
General Description:	This vent will filter air displaced by the incoming ash in the Fly Ash Silo, MHDR-6 ton/hr
Manufacturer/Model #:	United conveyor Co.
IEQ Reference # (Year):	2000

EU0270B Bin Vent Filter Located on top of the Fly Ash Silo	
General Description:	This vent will filter air displaced by the incoming ash in the Fly Ash Silo, MHDR-5 ton/hr
Manufacturer/Model #:	United conveyor Co.
EQ Reference # (Year):	2000

Permit Conditions EU0260A-001, EU0260B-001, EU0270A-001 and EU0270B-001 10 CSR 10-6.060 Construction Permits Required 10 CSR 10-6.220 Restriction of Emissions of Visible Air Contaminants Construction Permit # 0196-011
--

Operational Limitation:

All emission controls including bin vent filter and filter/Separator proposed – in this permit application shall be well maintained and used as required to comply with the applicable regulations at any time this installation is in operation.(Special Condition # 1)

Emission Limitation:

No person may discharge into the ambient air from any single source of emission whatsoever, any air contaminant:

- Of a shade or density equal to or darker than that designated 20% opacity; or
- Of an opacity as to obscure an observer’s view to a degree equal to or greater than does smoke designated as 20% opacity.

Exception: A person may discharge into the atmosphere from any single source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty (60) minutes air contaminants of a shade or density not equal to nor darker than 60% opacity; or of an opacity as to obscure an observer’s view to a degree not equal to nor greater than does smoke designated as 60 % opacity.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA 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 using a certified Method 9 observer.
- 2) The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight (8) consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two weeks for a period of eight (8) weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, 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.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment B and B1), 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.
- 3) The permittee shall maintain records of any Method 9 opacity test (see attachment B3) performed in accordance with this permit condition.

Reporting:

The permittee shall report to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedance of the opacity limit established by 10 CSR 10-6.220, or any malfunction which could cause an opacity exceedance.

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 10-6.050 Start-up, Shutdown and Malfunction Conditions

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

10 CSR 10-6.060 Construction Permits Required

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

10 CSR 10-6.065 Operating Permits

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

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

- 1) The permittee shall 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 due April 1 each year for emissions produced during the previous calendar year. 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 10-2.100 Open Burning Restrictions

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

10 CSR 10-2.070 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 15 minutes apart within the period of one hour.

This requirement is not federally enforceable.

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

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

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

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

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

- a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
- b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
- c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
- d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. Federal Only - 40 CFR part 82

10 CSR 10-6.280 Compliance Monitoring Usage

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

- b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

V) General Permit Requirements

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

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

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

10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements

- 1) Recordkeeping
 - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
 - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site 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, Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
 - b) The permittee shall submit a report of all required monitoring by:
 - i) October 1st for monitoring which covers the January through June time period, and
 - ii) April 1st for monitoring which covers the July through December time period.
 - iii) Exception. Monitoring requirements which require reporting more frequently than semi annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
 - c) Each report shall identify any deviations from emission limitations, monitoring, recordkeeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
 - d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.
 - ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
 - iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in this permit, and no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.
 - e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
 - f) The permittee may request confidential treatment of information submitted in any report of deviation.

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

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

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

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

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

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

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

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

The permittee shall obtain an Acid Rain Source Permit for boiler #6 pursuant to Title IV of the Clean Air Act. The permittee submitted a Phase II permit application on December 20, 1995 under 10 CSR 10-6.270, "Acid Rain Source Permits Required." Nitrogen Oxide (NO_x) and Sulfur dioxide (SO₂) limitations are referenced in the installation's Phase II permit. The Phase II permit (MDNR permit #OP2006-048, ORIS Code 2098) was issued on July 27, 2006 and expires on December 31, 2009.

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)1.J Emissions Trading

None

10 CSR 10-6.065(6)(C)3 Compliance Requirements

- 1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- 2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- 3) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, as well as the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
 - a) The identification of each term or condition of the permit that is the basis of the certification;
 - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
 - c) Whether compliance was continuous or intermittent;
 - d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
 - e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

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

- 1) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:

- a) The 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, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1) Section 502(b)(10) changes. Changes that, under section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting or compliance requirements of the permit.
 - a) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 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 ACP shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the ACP 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 ACP as soon as possible after learning of the need to make the change.

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

10 CSR 10-6.065(6)(C)9 Off-Permit Changes

- 1) Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
- 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;
 - The permittee must provide written notice of the change to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 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.
 - 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
 - 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 Glenn Keefe. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

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

This permit may be reopened for cause if:

- 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,
- MDNR or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
 - The permit has a remaining term of less than three years;
 - The effective date of the requirement is later than the date on which the permit is due to expire; or
 - 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,
- 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
- MDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

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

This permit is accompanied by a statement setting forth the legal and factual basis for the draft 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 B1

10 CSR 10-6.220 Opacity Emission Observation Log

This attachment may be used to help meet the recordkeeping requirements of Permit Conditions: EU0010-003, EU0020-003, EU0030-003, EU0040-003, EU0050-002, EU0060-002, EU0260A-001, EU0260B-001, EU0270A-001, and EU0270B-001.

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

ATTACHMENT B3
 10 CSR 10-6.220 Opacity Summary Report

This attachment may be used to help meet the recordkeeping requirements of Permit Conditions: EU0010-003, EU0020-003, EU0030-003, EU0040-003, EU0050-002, EU0060-002, EU0260A-001, EU0260B-001, EU0270A-001, and EU0270B-001.

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

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

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

Readings ranged from _____ to _____ % opacity.

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

Attachment D

OPACITY SUMMARY REPORT

PART I. INSTALLATION INFORMATION

Name of Company:	Aquila Lake Road Plant	Report Period:	
Address:	Lower Lake Road	Cer./CEA: (date)	(Hr)
	Saint Joseph, MO 64502-0998	Emission Limit:	
Manufacturer/Model Number	Stack/Process	Emission Point:	
CDs CNTY & SOURCE #'s:		Pollutant Monitored:	

Total Source Operating Time in Report Period: (Min)

PART II. CAUSE OF EXCESS EMISSIONS (EE)	Duration of EE (Min)	Percent of Operating Time
A. Air Pollution Control Equipment Failure (01)		
B. Fuel Problem (02)		
C. Process Problem (03)		
D. Unknown Cause (Excess Emission) (04)		
E. Startup (05)		
F. Soot Blowing (06)		
G. Other Known Causes (Excess Emission) (07)		
H. Shutdown (08)		
I. Total (A + B + ...E)		
Part III CAUSES OF COMS DOWNTIME	Downtime (Min)	Percent of Operating Time
A. Monitor Equipment Malfunction (01)		
B. Non-monitor Equipment Malfunction (02)		
C. Quality Assurance (03)		
D. Other Known Cause (Monitor Malfunction) (04)		
E. Unknown Cause (Monitor Malfunction) (05)		
F. Total (A + B + ...E)		

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

EXCESS OPAC EMISSION SUMMARY

Source: Aquila Lake Road Plant

Quarter: _____ Year: _____

Source of Emissions: _____

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

Excess Emission Duration _____ (hours)

If duration is other than zero, submit Visible Emission form.

Monitoring System Downtime Due to Quality Assurance _____ (hours)

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

Monitoring System Downtime Excluding Downtime Due to Quality Assurance

_____ (hours)

Source Operating Time

_____ (hours)

Reported by _____

Position Title _____

EXCESS EMISSION SUMMARY – VISIBLE EMISSIONS

Source: Aquila Lake Road Plant Report Period: ____/____/____ to ____/____/____

Source of Emissions: _____

<u>Date</u>	<u>Time</u>	<u>Magnitude</u>	<u>Reason Message</u>
-------------	-------------	------------------	-----------------------

EXCESS EMISSION SUMMARY – OPAC MONITORING SYSTEM DOWNTIME

Source: Aquila Lake Road Plant Report Period: ____/____/____ to ____/____/____

Source of Emissions: _____

<u>Date</u>	<u>Time</u>	<u>Duration (D-H-M)</u>	<u>Reason Message</u>
-------------	-------------	--------------------------	-----------------------

Attachment E

SO₂ EMISSION SUMMARY REPORT

PART I. INSTALLATION INFORMATION

Name of Company:	Aquila Lake Road Plant	Report Period:	
Address:	Lower Lake Road	Cer./CEA: (date)	(Hr)
	St. Joseph, MO 64502-0998	Emission Limit:	
Manufacturer/Model Number	Stack/Process	Emission Point:	
CDs CNTY & SOURCE #'s:		Pollutant Monitored:	SO ₂ #RAVG

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

PART II. CAUSE OF EXCESS EMISSIONS (EE)	Duration of EE (Hrs)	Percent of Operating Time
A. Air Pollution Control Equipment Failure (01)		
B. Fuel Problem (02)		
C. Process Problem (03)		
D. Unknown Cause (Excess Emission) (04)		
E. Startup (05)		
F. Soot Blowing (06)		
G. Other Known Causes (Excess Emission) (07)		
H. Shutdown (08)		
I. Total (A + B + ...E)		
Part III CAUSES OF CEMS DOWNTIME	Downtime (Hrs)	Percent of Operating Time
A. Monitor Equipment Malfunction (01)		
B. Non-monitor Equipment Malfunction (02)		
C. Quality Assurance (03)		
D. Other known Cause (Monitor Malfunction) (04)		
E. Unknown Cause (Monitor Malfunction) (05)		
F. Total (A + B + ...E)		

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

EXCESS SO₂ #RAVG EMISSION REPORT

Source: Aquila Lake Road Plant

Quarter: _____ Year: _____

Source of Emissions: _____

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

Excess Emission Duration _____ (hours)

If duration is other than zero, submit SO₂ #RAVG emission form.

Monitoring System Downtime Due to Quality Assurance _____ (hours)

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

Monitoring System Downtime Excluding Downtime Due to Quality Assurance

_____ (hours)

Source Operating Time

_____ (hours)

Reported by _____

Position Title _____

EXCESS EMISSION SUMMARY – SO₂ #RAVG

Source: Aquila Lake Road Plant Report Period: ____/____/____ to ____/____/____

Source of Emissions: _____

<u>Date</u>	<u>Time</u>	<u>Magnitude</u>	<u>Reason Message</u>
-------------	-------------	------------------	-----------------------

EXCESS EMISSION SUMMARY – SO₂ #RAVG MONITORING SYSTEM DOWNTIME

Source: Aquila Lake Road Plant Report Period: ____/____/____ to ____/____/____

Source of Emissions: _____

<u>Date</u>	<u>Time</u>	<u>Duration (hr)</u>	<u>Reason Message</u>
-------------	-------------	-----------------------	-----------------------

Attachment F

Table 2 to subpart DDDDD of part 63
 Operating Limits For Boilers and Process Heaters with Particulate Matter Emission Limits

If you demonstrate compliance with applicable particulate matter emission limits using...	You must meet these operating limits...
1. Wet scrubber control...	Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to subpart DDDDD that demonstrated compliance with the applicable emission limit for particulate matter.
2. Fabric filter control...	<ul style="list-style-type: none"> a. Install and operate a bag leak detection system according to §63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during each 6-month period; or b. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
3. Electrostatic precipitator control...	<ul style="list-style-type: none"> a. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average); or b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.
4. Any other control type...	This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).

Attachment G

Table 3 to subpart DDDDD of part 63

Operating Limits for Boilers and Process Heaters with Mercury Emission Limits and Boilers and Process Heaters that Choose to Comply with the Alternative Total Selected Metals Emission Limits

If you demonstrate compliance with applicable mercury and/or total selected metals emission limits using...	You must meet these operating limits...
1. Wet scrubber control...	Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to subpart DDDDD that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.
2. Fabric filter control...	<ul style="list-style-type: none"> a. Install and operate a bag leak detection system according to §63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period; or b. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
3. Electrostatic precipitator control...	<ul style="list-style-type: none"> a. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average); or b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to §63.7530(c) and Table 7 to subpart DDDDD that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.
4. Dry scrubber or carbon injection control...	Maintain the minimum sorbent or carbon injection rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to subpart DDDDD that demonstrated compliance with the applicable emission limit for mercury.
5. Any other control type...	This option is only for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
6. Fuel analysis...	Maintain the fuel type or fuel mixture such that the mercury and/or total selected metals emission rates calculated according to §63.7530(d)(4) and/or (5) is less than the applicable emission limits for mercury and/or total selected metals.

Attachment H

Table 4 to subpart DDDDD of part 63

Operating Limits for Boilers and Process Heaters with Hydrogen Chloride Emission Limits

If you demonstrate compliance with applicable hydrogen chloride emission limits using...	You must meet these operating limits...
1. Wet scrubber control...	Maintain the minimum scrubber effluent pH, pressure drop, and liquid flow-rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to subpart DDDDD that demonstrated compliance with the applicable emission limit for hydrogen chloride.
2. Dry scrubber control...	Maintain the minimum sorbent injection rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to subpart DDDDD that demonstrated compliance with the applicable emission limit for hydrogen chloride.
3. Fuel analysis...	Maintain the fuel type or fuel mixture such that the hydrogen chloride emission rate calculated according to §63.7530(d)(3) is less than the applicable emission limit for hydrogen chloride.

Attachment I

Table 5 to subpart DDDDD of part 63
Performance Testing Requirements

To conduct a performance test for the following pollutant...	You must...	Using...
1. Particulate matter...	Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of chapter 40.
	Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of chapter 40.
	Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of chapter 40, or ASME PTC 19, Part 10 (1981) (IBR, see §63.14(i)).
	Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of chapter 40.
	Measure the particulate matter emission concentration.	Method 5 or 17 (positive pressure fabric filters must use Method 5D) in appendix A to part 60 of chapter 40.
	Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of chapter 40.
2. Total selected metals...	Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of chapter 40.
	Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of chapter 40.
	Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of chapter 40, or ASME PTC 19, Part 10 (1981) (IBR, see §63.14(i)).
	Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of chapter 40.
	Measure the total selected metals emission concentration.	Method 29 in appendix A to part 60 of chapter 40.
	Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology in appendix A to part 60 of chapter 40.
3. Hydrogen chloride...	Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of chapter 40.
	Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G in appendix A to part 60 of chapter 40.
	Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of chapter 40, or ASME PTC 19, Part 10 (1981) (IBR, see §63.14(i)).
	Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of chapter 40.
	Measure the hydrogen chloride emission concentration.	Method 26 or 26A in appendix A to part 60 of chapter 40.
	Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology in appendix A to part 60 of chapter 40.
4. Mercury	Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of chapter 40.
	Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of chapter 40.

To conduct a performance test for the following pollutant...	You must...	Using...
	Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of chapter 40, or ASME PTC 19, Part 10 (1981) (IBR, see §62.14(i)).
	Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of chapter 40.
	Measure the mercury emission concentration.	Method 29 in appendix A to part 60 of chapter 40 or Method 101A in appendix B to part 61 of chapter 40 or ASTM Method D6784-02 (IBR, see §63.14(b)).
	Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of chapter 40.
5. Carbon monoxide...	Select the sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of chapter 40.
	Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of chapter 40, or ASTM D6522-00 (IBR, see §63.14(b), or ASME PTC 19, Part 10 (1981) (IBR, see §63.14(i)).
	Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of chapter 40.
	Measure the carbon monoxide emission concentration.	Method 10, 10A, or 10B in appendix A to part 60 of chapter 40, or ASTM D6522-00 (IBR, see §63.14(b)) when the fuel is natural gas.

Attachment J
Table 6 to subpart DDDDD of part 63
Fuel Analysis Requirements

To conduct a fuel analysis for the following pollutant...	You must...	Using...
1. Mercury...	Collect fuel samples ...	Procedure in §63.7521(c) or ASTM D2234-00 ϵ^1 (for coal)(IBR, see §63.14(b)) or ASTM D6323-98 (2003)(for biomass)(IBR, see §63.14(b)) or equivalent.
	Composite fuel samples...	Procedure in §63.7521(d) or equivalent.
	Prepare composited fuel samples...	SW-846-3050B (for solid samples) or SW-846-3020A (for liquid samples) or ASTM D2013-01 (for coal) (IBR, see §63.14(b)) or ASTM D5198-92 (2003) (for biomass)(IBR, see §63.14(b)) or equivalent.
	Determine heat content of the fuel type...	ASTM D5865-03a (for coal)(IBR, see §63.14(b)) or ASTM E711-87 (1996) (for biomass)(IBR, see §63.14(b)) or equivalent.
	Determine moisture content of the fuel type...	ASTM D3173-02 (IBR, see §63.14(b)) or ASTM E871-82 (1998)(IBR, see §63.14(b)) or equivalent.
	Measure mercury concentration in fuel sample...	ASTM D3684-01 (for coal)(IBR, see §63.14(b)) or SW-846-7471A (for solid samples) or SW-846 7470A (for liquid samples).
	Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	
2. Total selected metals...	Collect fuel samples...	Procedures in §63.7521(c) or ASTM D2234-00 ϵ^1 (for coal)(IBR, see §63.14(b)) or ASTM D6323-98 (2003) (for biomass)(IBR, see §63.14(b)) or equivalent.
	Composite fuel samples...	Procedures in §63.7521(d) or equivalent.
	Prepare composited fuel samples...	SW-846-3050B (for solid samples) or SW-846-020A (for liquid samples) or ASTM D2013-01 (for coal)(IBR, see §63.14(b)) or ASTM D5198-92 (2003)(for biomass)(IBR, see §63.14(b)) or equivalent.
	Determine heat content of the fuel type...	ASTM D5865-03a (for coal)(IBR, see §63.14(b)) or ASTM E 711-87 (for biomass)(IBR, see §63.14(b)) or equivalent.
	Determine moisture content of the fuel type...	ASTM D3173-02 (IBR, see §63.14(b)) or ASTM E871 (IBR, see §63.14(b)) or equivalent.
	Measure total selected metals concentration in fuel sample...	SW-846-6010B or ASTM D3683-94 (2000) (for coal) (IBR, see §63.14(b)) or ASTM E885-88 (1996) (for biomass)(IBR, see §63.14(b)).
	Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	
3. Hydrogen chloride...	Collect fuel samples...	Procedure in §63.7521(c) or ASTM D2234 ϵ^1 (for coal)(IBR, see §63.14(b)) or ASTM D6323-98 (2003) (for biomass)(IBR, see §63.14(b)) or equivalent.
	Composite fuel samples...	Procedure in §63.7521(d) or equivalent.
	Prepare composited fuel samples...	SW-846-3050B (for solid samples) or SW- 846-3020A (for liquid samples) or ASTM D2013-01 (for coal)(IBR, see §63 63.14(b)) ASTM D5198-92 (2003) (for biomass)(IBR, see §63.14(b)) or equivalent.
	Determine heat content of the fuel type...	ASTM D5865-03a (for coal)(IBR, see §63.14(b)) or ASTM E711-87 (1996) (for biomass)(IBR, see §63.14(b)) or equivalent.
	Determine moisture content of the fuel type...	ASTM D3173-02 (IBR, see §63.14(b)) or ASTM E871-82 (1998)(IBR, see §63.14(b)) or equivalent.
	Measure chlorine concentration in fuel sample...	SW-846-9250 or ASTM E776-87 (1996) (for biomass)(IBR, see §63.14(b)) or equivalent.
	Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	

Attachment K

Table 7 to subpart DDDDD of part 63
Establishing Operating Limits

If you have an applicable emission limit for...	And your operating limits are based on ...	You must...	Using...	according to the following requirements
1. Particulate matter, mercury, or total selected metals.	Wet scrubber operating parameters.	Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to §63.7530(c).	Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test	You must collect pressure drop and liquid flowrate data every 15 minutes during the entire period of the performance tests; Determine the average pressure drop and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
	Electrostatic precipitator operating parameters (option only for units with additional wet scrubber control).	Establish a site-specific minimum voltage and secondary current or total power input according to §63.7530(c)	Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test.	You must collect voltage and secondary current or total power input data every 15 minutes during the entire period of the performance tests; Determine the average voltage and secondary current or total power input for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
2. Hydrogen chloride...	Wet scrubber operating parameters.	Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to §63.7530(c).	Data from the pH, pressure drop, and liquid flow-rate monitors and the hydrogen chloride performance test.	You must collect pH, pressure drop, and liquid flow-rate data every 15 minutes during the entire period of the performance tests; Determine the average pH, pressure drop, and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
	Dry scrubber operating parameters.	Establish a site-specific minimum sorbent injection rate operating limit according to §63.7530(c)	Data from the sorbent injection rate monitors and hydrogen chloride performance test.	You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests; Determine the average sorbent injection rate for each individual test run in the three-run performance test by computing the average of all the 15- minute readings taken during each test run.

Attachment L

Table 8 to subpart DDDDD of part 63
 Demonstrating Continuous Compliance

If you must meet operating limits or work practice standards...	You must demonstrate continuous compliance by...
1. Opacity...	Collecting the opacity monitoring system data according to §§63.7525(b) and 63.7535; and Reducing the opacity monitoring data to 6-minute averages; and Maintaining opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent for existing sources; or maintaining opacity to less than or equal to 10 percent (1-hour block average) for new sources.
2. Fabric Filter Bag Leak Detection Operation...	Installing and operating a bag leak detection system according to §63.7525 and operating the fabric filter such that the requirements in §63.7540(a)(9) are met.
3. Wet Scrubber Pressure Drop and Liquid Flow-Rate...	Collecting the pressure drop and liquid flow rate monitoring system data according to §§63.7525 and 63.7535; and Reducing the data to 3-hour block averages; and Maintaining the 3-hour average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to §63.7530(c).
4. Wet Scrubber pH...	Collecting the pH monitoring system data according to §§63.7525 and 63.7535; and Reducing the data to 3-hour block averages; and Maintaining the 3-hour average pH at or above the operating limit established during the performance test according to §63.7530(c).
5. Dry Scrubber Sorbent or Carbon Injection Rate...	Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§63.7525 and 63.7535; and Reducing the data to 3-hour block averages; and Maintaining the 3-hour average sorbent or carbon injection rate at or above the operating limit established during the performance test according to §§63.7530(c).
6. Electrostatic Precipitator Secondary Current and Voltage or Total Power Input...	Collecting the secondary current and voltage or total power input monitoring system data for the electrostatic precipitator according to §§63.7525 and 63.7535; and Reducing the data to 3-hour block averages; and Maintaining the 3-hour average secondary current and voltage or total power input at or above the operating limits established during the performance test according to §§63.7530(c).
7. Fuel Pollutant Content...	Only burning the fuel types and fuel mixtures used to demonstrate Compliance with the applicable emission limit according to §63.7530(c) or (d) as applicable; and Keeping monthly records of fuel use according to §63.7540(a).

Attachment M

10 CSR 10-2.040 Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating.

Calculating Q for Installation:

Boiler #1	192.0 MMBTU/hr
Boiler #2	192.0 MMBTU/hr
Boiler #3	238.0 MMBTU/hr
Boiler #4	311.0 MMBTU/hr
Boiler #5	336.0 MMBTU/hr
Boiler #6	980.0 MMBTU/hr

$$Q = 2249 \text{ MMBTU/hr}$$

The allowable particulate matter emission rate for Boilers #1, #2, #3, #4, #5 and #6 therefore, is as follows:

$$E (\text{lb/MMBTU}) = 1.09 \times Q^{-0.259}$$

Where

E = the maximum allowable particulate ER in pounds per million BRU of heat input rounded off to two (2) decimal places; and

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

$$E (\text{lb/MMBTU}) = 1.09 \times Q^{-0.259}$$

$$E = 1.09 \times (2249)^{-0.259}$$

$$E = 0.1476 \text{ Lbs/MMBTU}$$

$$E = \underline{0.15} \text{ Lbs/MMBTU}$$

UNIT COMPLIANCE TABLE- 10 CSR 10-2.040

Emission Unit	Max. Heat Input (mmBtu/hr)	Fuel Type	PM Emission Factor*	Max Hourly Design Rate (fuel/hr)	Max Uncontrolled PM Emissions lb/MMBtu	Max Allowable PM Emissions lb/MMBtu
EU0010	192	Natural Gas	7.6 lb/10 ⁶ scf	0.19 mmcf/hr	0.0075	0.15
		No. 2 fuel oil	3.3 lb/10 ³ gal	1.4 * 10 ³ gallons	0.024	0.15
EU0020	192	Natural Gas	7.6 lb/10 ⁶ scf	0.19 mmcf	0.0075	0.15
		No. 2 fuel oil	3.3 lb/10 ³ gal	1.4 * 10 ³ gallons	0.024	0.15
EU0030	238	Natural Gas	7.6 lb/10 ⁶ scf)	0.2373 mmcf	0.0076	0.15
		None	none	None	none	0.15
EU0040	311	Natural Gas	7.6 lb/10 ⁶ scf	0.310 mmcf	0.0076	0.15
		No. 2 fuel oil	3.3 lb/10 ³ gal	2.27 * 10 ³ gallons	0.024	0.15
EU0050 (97.52 % control device efficiency)	336	Pulverized Coal (Ash content 5.92%)	10A lb/ton A = 5.82	17.456 ton	3.08	0.15
		Natural Gas	7.6 lb/10 ⁶ scf	0.335 mmcf	0.0076	0.15
EU0060 (97.52 % control device efficiency)	980	Cyclone (Coal) (Ash content 5.92%)	2.1A lb/ton A = 5.61	52.575 Tons	0.63	0.15
		Natural Gas	7.6 lb/10 ⁶ scf	0.977 mmcf	0.0076	0.15

Maximum Uncontrolled PM Emission Rate = (Emission Factor) x (Max Hourly Design Rate)/ (Heat Input)

Appendix 1

Variable Table

Supplier Certificate for Fuel Oil Sulfur Content

Certificate for fuel Sulfur Content

Coal Yard & blending System Narrative

<u>Variable</u>	<u>Definition</u>
#coal/hour	Total Hourly, as-fired coal mass rate to boiler 5 determined by summing the weight output from each pulverizer
#S/#coal	Sulfur to coal weight fraction of each daily, post-blend, aggregate coal sample collected by the automatic sampler during coal load out to the boiler 5 day bunkers, as determined by a recognized ASTM analysis method
F _{blend}	S-to-SO ₂ Conversion factor that adjusts for variable sulfur retention, based on the weight fraction of bituminous and sub-bituminous coals loaded to the Boiler 5 day bunker, determined as follows: $F_{blend} = 1.9 * w\% \text{ bituminous} + 1.75 * w\% \text{ sub-bituminous}$
w% bituminous	The daily-weighted mass fraction of bituminous coal loaded to the boiler 5 day bunker, as measured and recorded by the computerized fuel-blending system
w% bituminous	The daily-weighted mass fraction of sub-bituminous coal loaded to the boiler 5 day bunker, as measured and recorded by the computerized fuel-blending system
mmBtu (coal+gas)/hour	The total hourly, as fired heat input to Boiler 5 determined from the coal and gas firing rates and associated fuel heating values, determined as follows: $mmBtu(\text{coal} + \text{gas})/\text{hour} = \#coal/\text{hour} * HV \text{ coal} + NGrate * HV_{gas}$
NGrate	The total hourly, as-fired volume of natural gas measured and recorded by the Boiler 5 gas-metering system, in units of mmcf/hour
HV coal	The as-fired heating value of each daily, post-blend, aggregate coal loadout to the Boiler 5 day bunkers, as determined by a recognized ASTM analysis method, in units of mmBtu/#coal
HVgas	The daily, as-fired heating value of pipeline grade natural, as determined by a recognized ASTM analysis method, a “worst-case” gas heating value of 950 Btu/cf, or other gas-heating value factor supported by on – site records from the gas supplier, in units of Btu/ft ³ gas

St. Joseph Light & Power Company
Lake Road Plant
Supplier Certificate of fuel Oil Sulfur Content

Under an agreement with the Missouri Department of Natural Resources and the United States Environmental Protection Agency, St. Joseph Light & Power Company (SJLP) must purchase N0.2 fuel oil with a sulfur content of not greater than 0.05% maximum by weight and obtain certification from the supplier that the oil purchased meets this specification. This "Supplier Certificate of Fuel Oil Sulfur Content" must be completed and returned to SJLP with each purchase order issued for N0. 2 fuel oil

I certify, to the best of my knowledge and belief, that the No. 2 fuel oil supplied by _____ to St. Joseph Light & Power Company's Lake Road Plant under SJLP Purchase Order No. _____ had a sulfur content of not more than 0.05% by weight.

Signed: _____

Printed Name: _____

Title: _____

Company: _____

Date: _____

St. Joseph Light & Power Company
Lake Road Plant
Certificate of fuel Sulfur Content

St. Joseph Light & Power Company, Under an agreement with the Missouri Department of Natural Resources and the United States Environmental Protection Agency, must not burn fuel in certain Lake road Plant generating units with a sulfur content greater than 0.05% maximum by weight.

I certify, to the best of my knowledge and belief, that during the following time period _____ either Natural gas, Propane or No.2 fuel oil with a sulfur content of not more than 0.05% by weight was burned in the following lake Road Plant units:
boilers No. 1,2,3,4, and Combustion Turbines No. 5, 6 and 7.

Signed: _____

Printed Name: _____

Title: _____

St. Joseph Light & Power Company

Date: _____

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 02-27-1997; revised 11-29-2001
- 2) 2000 Emissions Inventory Questionnaire, received 03-28-2001;
- 3) U.S. EPA document AP-42, Compilation of Air Pollutant Emission Factors; Volume I, Stationary Point and Area Sources, Fifth Edition.

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

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

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

This rule had not been created at the time of the application; however, it has been determined to be applicable to the installation and therefore has been included in the operating permit.

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

This rule had not been applied to EU0010, EU0020, EU0030, and EU0040 in the permit application; however, it has been determined to be applicable to the EU0010, EU0020, EU0030, and EU0040 and therefore has been included in the operating permit.

Other Air Regulations Determined Not to Apply to the Operating Permit

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

10 CSR 10-2.200, Restriction of Emission of Sulfur Compounds From Indirect Heating Sources

This rule was rescinded from the Missouri Air Rules and Regulations as of July 30, 1997. This regulation has been replaced by 10 CSR 10-6.260, Restriction of Emission of Sulfur Compounds.

10 CSR 10-2.160, Restriction of Emission of Sulfur Compounds

This rule was rescinded from the Missouri Air Rules and Regulations as of July 30, 1997. This regulation has been replaced by 10 CSR 10-6.260, Restriction of Emission of Sulfur Compounds.

10 CSR 10-2.060, Restriction of Emission of Visible Air contaminants

This rule was rescinded from the Missouri Air Rules and Regulations as of September 28, 1990. This regulation has been replaced by 10 CSR 10-6.220, Restriction of Emission of Visible Air contaminants.

10 CSR 10-2.030, Restriction of Emission of Particulate Matter From Industrial Processes

This rule was rescinded from the Missouri Air Rules and Regulations as of March 30, 2001. This regulation has been replaced by 10 CSR 10-6.400, Restriction of Emission of Particulate Matter from Industrial Processes.

10 CSR 10-2.080, Emission of Visible Air Contaminates from Internal Combustion Engines

The Air pollution Control Program has decided that the rule was intended to be applicable only to mobile sources, therefore, it has not been included in the permit.

10 CSR 10-2.030, Restriction of Emission of Particulate Matter from Industrial Processes

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

The applicant identified the following units in the operating permit application as subject to this rule. The units are either exempt or not subject to this rule as explained below.

EU-0080	No. 6 Jet Engine (Combustion Turbine # 6)
EU-0090	No. 7 Jet Engine (Combustion Turbine # 7)
EU-0110	Rotary Car Coal Unloading.
EU-0120	Coal Transfer belts.
EU-0130	Coal Storage.
EU-0140	Fly Ash Temporary Storage.
EU-0240	Crusher Building (Transferring, Dropping and Coal Crushing).
EU-0250	Truck Dump Area./Reclaim.
EU-0280A	Fly Ash Truck Unloading.
EU-0280B	Fly Ash Truck Unloading.
EU-0290	Conveyor Belts 6 and 7.
EU-0300	Conveyor belt 8.
EU-0310	Conveyor belts 1 and 2.
EU-0320	Emergency Coal Stockout Pile.
EU-0330	Conveyor belt 4.

These units are exempted from this rule for the following reasons.

1. Under 10 CSR 10-6.400 Process weight means the total weight of all materials introduced into a source operation, including solid fuels, but excluding liquids and gases used solely as fuels. In the case of
 - EU-0080 - No. 6 Jet Engine (Combustion Turbine # 6)
 - EU-0090 - No. 7 Jet Engine (Combustion Turbine # 7)Liquids and gases used solely as fuels.
2. Under 10 CSR 10-6.400 the process weight rule does not apply to the following.
 - Fugitive emissionsThat is the case of EU0130 and EU0140
 - The grinding, crushing and conveying operations at a power plant
 - Emission units that at maximum design capacity have a potential to emit less than one-half (0.5) pounds per hour of particulate matter.That is the case in EU-0280A & EU-0280B

Emission Point/unit 22 has been removed.

Construction Permit Revisions
Construction Permit #0389-003

Installation was issued a Construction Permit # 0389-003 to construct two 7500 gas –fired turbines for the purpose of generating electrical power. These peaking units allow a utility to supply electrical power during times of high peak demand. Installation never installed these two (2) peaking units, therefore these two (2) turbines are not included in this operating permit. If the Installation decided in the future to install these two (2) turbines, they need to go through the New Source Review Unit (NSR), since the installation date would be past the two (2) year time period allowed under 10 CSR 10-6.060, Construction Permits Required.

Construction Permit #062006-001

The installation was issued Construction Permit #062006-001 on June 2, 2006 to install a 358 MMBtu/hr dual-fired boiler. If this unit is installed, the permittee needs to comply with all of the special conditions in the construction permit as well as any applicable state or federal regulations. A revision to the Part 70 Operating Permit application is required for this installation within 1 year of equipment startup as part of this construction permit.

New Source Performance Standards (NSPS) Applicability

10 CSR 10-6.070, New Source Performance Regulations

40 CFR Part 60, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for which Construction is Commenced After August 17, 1971.

Boilers #1, #2, #3, #4, #5 and #6 are not subject to 40 CFR Part 60, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for which construction is Commenced After August 17, 1971, because they were installed prior to the applicable date.

10 CSR 10-6.070, New Source Performance Regulations

40 CFR Part 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for which Construction was Commenced After September 18, 1978

Boilers #1, #2, #3, #4, #5 and #6 are not subject to 40 CFR Part 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for which Construction was Commenced After September 18, 1978, because they were installed prior to the applicable date.

10 CSR 10-6.070, New Source Performance Regulations

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

Boilers #1, #2, #3, #4, #5 and #6 are not subject to 40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, because they were installed prior to June 9, 1989, because they were installed prior to the applicable date

10 CSR 10-6.070, New Source Performance Regulations

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

EU0080 and EU0090 (Jet Engines 6 and 7) are not subject to 40 CRF Part 60, Subpart GG, Standards of Performance for Stationary Gas Turbines. Because they were not newly manufactured for Aquila Lake Road Plant but they were re-located from another site and the turbines were built before October 3, 1977, and were not modified or reconstructed when moved to Aquila Lake Road Plant.

EU0070 Gas Turbine is not subject to 40 CRF Part 60, Subpart GG, Standards of Performance for Stationary Gas Turbines for which construction is Commenced After October 3, 1977, because it was installed prior to the applicable date

10 CSR 10-6.070, New Source Performance Regulations

40 CFR Part 60, Subpart Y, Standards of Performance for Coal Preparation Plants

The original equipment was installed prior to October 24, 1974 (coal processing and conveying equipment (Including breakers and crushers), coal storage systems, and coal transfer and loading systems) and not subject to the requirements of Subpart Y.

In 2000, the installation replaced a crusher. The APCP received comments regarding the applicability of Subpart Y, from Henry Robertson of the Sierra Club, when the "draft" permit was placed on public notice in January 2003. The crusher was the only piece of equipment in the process line replaced and there was no increase in emissions. The APCP requested EPA assistance on the issue. A final decision has not been

made on the applicability of Subpart Y and the issue is still being discussed. The ACP and EPA have agreed to issue the operating permit without Subpart Y being applied to the crusher or process line. However, if a determination is made that Subpart Y is applicable, the operating permit will be "Re-Opened for Cause" to include the requirement.

MACT Applicability

40 CFR Part 63, Subpart B, Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections, Sections 112(g) and 112(j)

The permittee is a major source for HAPs and appears to be subject to the subpart categories to be regulated by 40 CFR Part 63, Subpart YYYYY, Combustion Turbines and/or Subpart DDDDD, Industrial/Commercial/Institutional Boilers. Aquila submitted a Part 1 notification for 112(j) on May 14, 2002. According to the May 30, 2003, Final Rule, if EPA fails to promulgate subparts YYYYY and/or DDDDD then Aquila must submit a Significant Permit Modification with a 112(j) Part 2 application by October 30, 2003, and/or April 28, 2004, respectively

40 CFR Part 63, Subpart DDDDD, Industrial/Commercial/Institutional Boilers & Process Heaters

The permittee is subject to this subpart as it operates boilers EU0010, EU0020, EU0030, EU0040, and EU0050 as part of a major source of HAP as defined in 40 CFR §63.2. The affected boilers are subject to only the initial notification requirements of 40 CFR §63.9(b). This facility submitted an initial notification on December 4, 2004.

According to 40 CFR §63.7506(b), EU0010 through EU0040 are not subject to emission limits, work practice standards, performance testing, monitoring SSMP, site-specific monitoring plans, recordkeeping or reporting requirements. EU0050 is subject to some of these requirements.

40 CFR Part 63, Subpart YYYYY, Combustion Turbines

The permittee is subject to this subpart as it operates combustion turbines EU0070, EU0080, and EU0090 as part of a major source of HAP as defined in 40 CFR §63.2. The affected combustion turbines are subject to only the initial notification requirements of 40 CFR §63.9(b). This facility has submitted an initial notification.

According to 40 CFR §63.6090(b), EU0070 through EU0090 are not subject to emission limits, work practice standards, performance testing, monitoring SSMP, site-specific monitoring plans, recordkeeping or reporting requirements.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

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

The requirements of this rule have been summarized and listed in the operating permit under the Core Permit Requirements.

Compliance Assurance Monitoring (CAM) Applicability

40 CFR Part 64, Compliance Assurance Monitoring (CAM)

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

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

Aquila Lake Road Plant submitted their Operating Permit Application before the effective date of CAM, and therefore was not required to implement CAM in the "initial" operating permit. However, Aquila Lake Road Plant will be required to implement CAM when they renew their operating permit if the installation has CAM

applicable units. Aquila Lake Road Plant has some emission units where Aquila Lake Road should be looking for CAM requirements prior to submitting their operating permit renewal application.

Other Regulatory Determinations
 EU0060-003.

Max. Allowable Emission Rate: calculation to show conversion of 1400.00 lbs.SO₂/hr to lbs. SO₂/mmBtu):
 For boiler # 6 in the Consent Agreement

$$1.429 \frac{\text{lbsSO}_2}{\text{mmBtu}} = \frac{1400 \frac{\text{lbsSO}_2}{\text{hr}}}{980 \frac{\text{mmBtu}}{\text{hr}}}$$

10 CSR 10-2.040 Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating.

Calculating Q for Installation:

Boiler #1	192.0 MMBTU/hr
Boiler #2	192.0 MMBTU/hr
Boiler #3	238.0 MMBTU/hr
Boiler #4	311.0 MMBTU/hr
Boiler #5	336.0 MMBTU/hr
Boiler #6	980.0 MMBTU/hr

$$Q = 2249 \text{ MMBTU/hr}$$

The allowable particulate matter emission rate for Boilers #1, #2, #3, #4, #5 and #6 therefore, is as follows:

$$E (\text{lb/MMBTU}) = 1.09 \times Q^{-0.259}$$

Where

E = the maximum allowable particulate ER in pounds per million BRU of heat input rounded off to two (2) decimal places; and

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

$$E (\text{lb/MMBTU}) = 1.09 \times Q^{-0.259}$$

$$E = 1.09 \times (2249)^{-0.259}$$

$$E = 0.1476 \text{ Lbs/MMBTU}$$

$$E = 0.15 \text{ Lbs/MMBTU}$$

UNIT COMPLIANCE TABLE- 10 CSR 10-2.040

Emission Unit	Max. Heat Input (mmBtu/hr)	Fuel Type	PM Emission Factor*	Max Hourly Design Rate (fuel/hr)	Max Uncontrolled PM Emissions lb/MMBtu	Max Allowable PM Emissions lb/MMBtu

UNIT COMPLIANCE TABLE- 10 CSR 10-2.040						
Emission Unit	Max. Heat Input (mmBtu/hr)	Fuel Type	PM Emission Factor*	Max Hourly Design Rate (fuel/hr)	Max Uncontrolled PM Emissions lb/MMBtu	Max Allowable PM Emissions lb/MMBtu
EU0010	192	Natural Gas	7.6 lb/10 ⁶ scf	0.19 mmcf/hr	0.0075	0.15
		No. 2 fuel oil	3.3 lb/10 ³ gal	1.4 * 10 ³ gallons	0.024	0.15
EU0020	192	Natural Gas	7.6 lb/10 ⁶ scf	0.19 mmcf	0.0075	0.15
		No. 2 fuel oil	3.3 lb/10 ³ gal	1.4 * 10 ³ gallons	0.024	0.15
EU0030	238	Natural Gas	7.6 lb/10 ⁶ scf)	0.2373 mmcf	0.0076	0.15
		None	none	None	none	0.15
EU0040	311	Natural Gas	7.6 lb/10 ⁶ scf	0.310 mmcf	0.0076	0.15
		No. 2 fuel oil	3.3 lb/10 ³ gal	2.27 * 10 ³ gallons	0.024	0.15
EU0050 (97.52 % control device efficiency)	336	Pulverized Coal (Ash content 5.92%)	10A lb/ton A = 5..82	17.456 ton	3.08	0.15
		Natural Gas	7.6 lb/10 ⁶ scf	0.335 mmcf	0.0076	0.15
EU0060 (97.52 % control device efficiency)	980	Cyclone (Coal) (Ash content 5.92%)	2.1A lb/ton A = 5.61	52.575 Tons	0.63	0.15
		Natural Gas	7.6 lb/10 ⁶ scf	0.977 mmcf	0.0076	0.15

Maximum Uncontrolled PM Emission Rate = (Emission Factor) x (Max Hourly Design Rate)/ (Heat Input)

Emission units 0010, 0020, 0030 and 0040 are in compliance and maximum potential emissions are less than the emission limits for all possible fuel types. Therefore the compliance calculations satisfy the monitoring requirements.

Since maximum uncontrolled PM emissions LB/MMBtu for EU0010, EU0020, EU0030 and EU0040 are less than the Max Allowable PM Emissions LB/MMBtu limits for all possible fuel types. Therefore the compliance calculations satisfy the monitoring requirements

Since maximum uncontrolled PM emissions LB/MMBtu for EU0050 and EU0060 are more than the Max Allowable PM Emissions LB/MMBtu limits when using Coal. Therefore the Installation is required to have Control device on these two units and monitor the operation of the control device to satisfy the monitoring requirements.

EU0070 (Gas Turbine 5, Stack and waste heat boiler # 7) is not an Indirect Heating Source, and the Waste heat boiler # 7 is not operable, therefore it is not subject to rule 10 CSR 10-2.040(Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating Required)

May 25, 2001, Consent Decree

Installation was required by consent decree to submit a compliance attainment report summarizing the fulfillment of the compliance measures and requirements set forth in the consent decree no later than 30 days after the consent decree is approved by the Court. Since the installation has already completed the Compliance Attainment Report, the conditions are not included in the operating permit.

Aquila Lake Road Plant was requested by consent decree to conduct a stack test on Boiler #5 to confirm the appropriateness of the equation listed under Permit Condition EU0050-003 for monitoring compliance with its SO₂ emission limit. Installation was also requested to submit a detailed test protocol to ACP for review and approval within thirty days after the consent decree is approved by the court. Testing must be conducted no later than 60 days after approval of the test protocol. Since the installation has already completed the Stack test, and a detailed test protocol, the conditions are not included in the operating permit.

10 CSR 10-6.060, Construction Permits Required

Construction Permit #0196-011 is for the installation of ash silos and mechanical exhausters. The controls on the mechanical exhausters are the filter/separators for the electrostatic precipitator (EU0050 and EU0060) and the bin vent filters. Since the monitoring and recordkeeping requirements of EU0050-EU0060 already contain provisions for the electrostatic precipitator, the conditions were not repeated on EU0260A, EU0260B, EU0270A and EU0270B.

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

Emission Units EU0050 and EU0060 contain COMS. The provisions of 10 CSR 10-6.220(3)(H)5. allow the installation the opportunity to request alternate monitoring methods if approved by the director. The installation has not requested any alternate methods on the COMS units, therefore those provisions of the regulation were not included in the operating permit.

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

This regulation is applicable to all boiler units and is included in the Title V permit for those units that burn fuels other than natural gas or propane and that are not specifically exempted from the operating permit requirements by 10 CSR 10-6.065. For those boilers not exempt from 10 CSR 10-6.065 but that burn natural gas, 10 CSR 10-6.220 is applicable. However, based on a decision/agreement between EPA Region VII, Air Pollution Control Program Enforcement and Air Pollution Control Program Permitting, 10 CSR 10-6.220 is not being included in the Title V permit for natural gas combustion units because by the nature of the fuel, no opacity exceedance would ever be expected under normal operating conditions.

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

The standard wording of emission limits for EU0010 through EU0060 under 10 CSR 10-6.260 is "No person shall cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of 8.6 pounds of sulfur dioxide per million BTUs actual heat input averaged on any consecutive three hour time period", However the Missouri Department of Natural Resources Operating Permit unit goes by the most Stringent limit which was indicated in May 25, 2001 Consent Agreement.

The standard wording of emission limits for EU0070 through EU0090 under 10 CSR 10-6.260 is "No person shall cause or permit the emission into the atmosphere gases containing more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide or more than thirty-five milligrams per cubic meter (35 mg/cubic meter) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three (3)-hour time period", However the Missouri Department of Natural Resources Operating Permit unit goes by the most Stringent limit which was indicated in May 25, 2001 Consent Agreement.

10 CSR 10-6.270, Acid Rain Source Permits Required

Boiler #6 and Combustion Turbine # 5 serve a generator greater than 25 MW. However, Combustion Turbine #5 commenced operation before 1990 and the Acid Rain provisions do not include combustion turbines commencing operation before 1990 (see 40 CFR Part 72.6). Therefore, Boiler #6 is the only unit at the installation that meets the definition of affected facility under the acid rain program.

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

10 CSR 10-6.350(1)(A) states, "This rule applies to any fossil fuel-fired electric generating unit that serves a generator with a nameplate capacity of greater than 25 MW." Since Boiler #1, #2, #3, #4, #5 and Jet Turbine #6 and #7 do not serve generators with a nameplate capacity greater than 25 MW, 10 CSR 10-6.350 is not applicable to those units.

Gas Turbine #5(EU0070) serves a generator with a nameplate capacity greater than 25 MW. However, 10 CSR 10-6.350(1)(B)2. exempts internal combustion engines which operate less than 400 hours per year, averaged over the most recent three years. In the years 2000, 2001 and 2002, Gas Turbine #5 operated an average of 268.8 hours per year.

Several portions of 10 CSR 10-6.350 which pertain to department actions were not included in the permit conditions, since the installation is not responsible for the department actions identified in 10 CSR 10-6.350. These provisions from the initial rule filed on February 15, 2000, are identified in: 10 CSR 10-6.350(3)(B)2.; the equations of (3)(B)3.A.(III) and (3)(B)3.B.(II); (3)(B)4.B.; (3)(B)4.C.; (3)(B)4.D.(II); (3)(B)4.E.; (3)(B)5.B.; (3)(B)8.; (3)(B)9.; and (3)(B)10.A.-H. These provisions from the December 4, 2002, amendments are identified in: 10 CSR 10-6.350(3)(B)2.; the equations of (3)(B)3.A.(III) and (3)(B)3.B.(II); (3)(B)4.B.; (3)(B)4.C.(II); (3)(B)4.D.(II); (3)(B)4.E.; (3)(B)5.B.; (3)(B)8.; (3)(B)9.; and (3)(B)10.A.-H.

10 CSR 10-6.400, Restriction of Emission of Particulate Matter from Industrial Process

Pursuant to 10 CSR 10-6.400 (B)12, the grinding, crushing and conveying operation at a power plant are exempted from 10 CSR 10-6.400 rule, therefore EU0150, EU0260A, EU0260B, EU0270A and EU0270B are exempted under this rule, because they fall under conveying operation

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

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

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

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

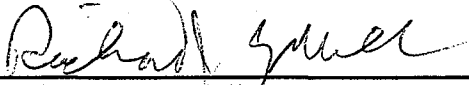
Lake Road Plant
Installation ID: 021-0004

Part 70 Operating Permit

SB - 9

Project No. 0520-0004-020

Prepared by:



Richard J. Campbell, P.E.
Environmental Engineer