



## 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:** OP2007-062

**Expiration Date:** NOV 25 2012

**Installation ID:** 037-0063

**Project Number:** 2006-06-037

**Installation Name and Address**

Aquila, South Harper Peaking Facility  
24400 South Harper Road  
Peculiar, MO 64078  
Cass County

**Parent Company's Name and Address**

Aquila, Inc.  
20 West 9<sup>th</sup>  
Kansas City, MO 64105

**Installation Description:**

Aquila, South Harper Peaking Facility consists of three natural gas fired simple cycle combustion turbines. The facility will generate a total nominal electrical power output of 341 megawatts during peak electricity demand periods.

NOV 26 2007

Effective Date

  
Director or Designee  
Department of Natural Resources

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## I. Installation Description and Equipment Listing

### INSTALLATION DESCRIPTION

Aquila, South Harper Peaking Facility consists of three natural gas fired simple cycle combustion turbines. The facility will generate a total nominal electrical power output of 341 megawatts during peak electricity demand periods.

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM-10)	Sulfur Oxides (SO <sub>x</sub> )	Nitrogen Oxides (NO <sub>x</sub> )	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2006	0.90	2.56	47.66	1.58	61.74	---	---
2005	1.82	1.55	30.44	0.96	37.31	---	---

### EMISSION UNITS WITH LIMITATIONS

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

Emission Unit #	Description of Emission Unit
EU0010	Combustion Turbine 1
EU0020	Combustion Turbine 2
EU0030	Combustion Turbine 3

### 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

None.

### DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) Construction Permit 122004-017, Issued December 29, 2004
- 2) Acid Rain Permit OP2006-036, Issued June 19, 2006

## **II. Plant Wide Emission Limitations**

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

None.

### III. Emission Unit Specific Emission Limitations

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

<b>EU0010 through EU0030 Combustion Turbines</b>			
<b>Emission Unit</b>	<b>Description</b>	<b>Manufacturer/Model #</b>	<b>2006 EIQ Reference #</b>
EU0010 EU0020 EU0030	Three (3) Natural Gas fired Combustion Turbines with total heat input capacity of 1455 MMBtu/hr; installed January 2005	Siemens- Westinghouse/501D5A	EP01, EP02, and EP03

**PERMIT CONDITION (EU0010 through EU0030)-001**

10 CSR 10-6.060 Construction Permits Required  
 Construction Permit No. 122004-017, Issued December 29, 2004

**Operational Limitation:**

- 1) South Harper Peaking Facility (Aquila) shall burn only natural gas from the three natural gas fired simple cycle combustion turbines. If Aquila wishes to use any other type of fuel in the future in any of the three turbines, the Best Available Control Technology (BACT) analysis and ambient air quality analysis will need to be re-evaluated. [Special Condition 1A]
- 2) Aquila shall limit the total hours of operation of the three turbines to less than 5,000 hours in any consecutive 12-month period. [Special Condition 1B]
- 3) Aquila shall limit the total hours of operation of each of the three turbines to less than 2,000 hours in any consecutive 12-month period, except in the case of a Force Majeure Event. In the case of a Force Majeure Event that renders one or two gas turbines inoperable, the total unused permitted hours of operation may be transferred to the remaining operative unit(s). In order for an event to be considered a Force Majeure Event, Aquila must receive approval from the Air Pollution Control Program’s Enforcement Section. [Special Condition 1C]  
Note: The term “Force Majeure Event; used herein is hereby defined as any event, occurrence, or circumstance beyond the reasonable control of, and without the fault or negligence of, Aquila. “Force Majeure Event” shall include, but are not limited to, earthquakes, fires, floods, lightning strikes, acts of the public enemy, war, or regulations or restrictions imposed by governmental, military or lawfully established civilian authorities. A claim of Force Majeure Event is subject to the approval of the Air Pollution Control Program Enforcement Section. [Note 2]
- 4) Except during periods of startup and shutdown, Aquila shall run the three turbines to a load level no less than 75 percent. [Special Condition 1E]

**Emission Limitation:**

- 1) Except during periods of startup and shutdown, Aquila shall limit Nitrogen Oxide (NOx) emissions from each of the turbines to 15 parts per million by volume (ppmvd) corrected to 15 percent oxygen on a dry basis for a three-hour rolling average. [Special Condition 2A]
- 2) Except during periods of startup and shutdown, Aquila shall limit Carbon Monoxide (CO) emissions from each of the turbines to 25 ppmvd corrected to 15 percent oxygen on a dry basis for a one-hour rolling average. [Special Condition 2B]

- 3) Except during periods of startup and shutdown, Aquila shall limit emissions of Particulate Matter less than ten microns in aerodynamic diameter (PM10) to less than 15.25 pounds per hour when utilizing wastewater injection for Turbine Number One and 10.00 pounds per hour from Turbine Numbers Two and Three, and Turbine One when not using wastewater injection. [Special Condition 2C]

Note: The term “startup and shutdown” used herein is hereby defined as those periods of time that a gas turbine is operated at a load level less than 75 percent. [Note 1]

**Monitoring:**

- 1) Aquila shall install, calibrate, maintain, and operate a Continuous Emission Monitoring System (CEMS), and record the output of the systems, for measuring NO<sub>x</sub> emissions discharged into the atmosphere. The CEMS shall be installed and operated according to the guidelines in 40 CFR Part 75 for the NO<sub>x</sub> and diluent CEMS requirements. These systems shall be placed in an appropriate location on each combustion turbine’s flue gas exhaust such that accurate readings are possible. [Special Condition 4A]
- 2) Aquila shall install, calibrate, maintain, and operate a CEMS, and record the output of the systems, for measuring the oxygen (O<sub>2</sub>) content of the flue gases at each location where NO<sub>x</sub> emissions are monitored. The O<sub>2</sub> content of the flue gases may be determined by use of either an O<sub>2</sub> CEMS or a CO<sub>2</sub> CEMS. If Aquila elects to use a CO<sub>2</sub> CEMS, the conversion process in EPA Method 20 must be used to correct the NO<sub>x</sub> concentrations to 15 percent O<sub>2</sub>. [Special Condition 4B]

**Recordkeeping:**

- 1) Aquila shall keep monthly, and the sum of the most recent 12-months, records that are adequate to determine compliance with Special Condition Number 1.B (total installation hours of operation). Attachment A or an equivalent form of the company’s own design, is suitable for this purpose. The most recent 60 months of records shall be maintained on-site and shall be made immediately available to Missouri Department of Natural Resources’ personnel upon request. [Special Condition 5A]
- 2) Aquila shall keep monthly, and the sum of the most recent 12-month, records that are adequate to determine compliance with Special Condition 1C (individual turbine hours of operation). Attachment B or an equivalent form of the company’s own design, is suitable for this purpose. The most recent 60 months of records shall be maintained on-site and shall be made immediately available to Missouri Department of Natural Resources’ personnel upon request. [Special Condition 5B]
- 3) Aquila shall keep monthly, and the sum of the most recent 12-month, records that are adequate to determine compliance with Special Condition 1D (individual turbine hours of operation). Attachment B or an equivalent form of the company’s own design, is suitable for this purpose. The most recent 60 months of records shall be maintained on-site and shall be made immediately available to Missouri Department of Natural Resources’ personnel upon request. [Special Condition 5B]

**Reporting:**

- 1) Aquila shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of each month if the 12-month cumulative total records show that the source exceeded the limitations of Special Condition 1B (5,000 hours of operation), or Special Condition 1C (2,000 hours of operation per turbine). [Special Conditions 6A and 6B]

- 2) Pursuant to 40 CFR §60.139(i), Aquila may make use of 40 CFR Part 75, Appendix D as an alternative to the fuel monitoring and sulfur fuel sampling and analysis requirements of Subpart GG of the NSPS. If Aquila elects to use this alternative, Aquila is subject to the following requirements:
  - a) Aquila shall submit an excess emissions report to the Air Pollution Control Program's Enforcement Section consistent with the format and schedule described in 40 CFR 6§0.7(d); and
  - b) For the purpose of excess emission reporting, Aquila shall report each day during which the sulfur content of the fuel exceeds the 0.8 percent by weight limitation. [Special Condition 6E]
- 3) In the case of a Force Majeure Event, Aquila shall notify the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after an event has occurred that Aquila feels meets the definition of a Force Majeure Event. [Special Condition 6G]

**PERMIT CONDITION (EU0010 through EU0030)-002**

10 CSR 10-6.070 New Source Performance Standards

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

**Emission Limitation:**

- 1) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of 15 parts per million by volume (ppmvd) corrected to 15 percent oxygen on a dry basis for a three-hour rolling average. [§60.332(a)(1)]
- 2) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen on a dry basis. [§60.333(a)]
- 3) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw). [§60.333(b)]

**Monitoring:**

For each affected unit that elects to continuously monitor parameters or emissions, the owner or operator shall submit reports of excess emissions and monitor downtime in accordance with section 60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction.

**Test Methods and Procedures:**

- 1) The owner or operator shall conduct the performance tests required in §60.8 using the methods described in §60.335(a).
- 2) The owner or operator shall determine compliance with the nitrogen oxide standard in §60.332(a) by using the following equation:
  - a) For each run of the performance test, the mean nitrogen oxides emission concentration ( $\text{NO}_{x_o}$ ) corrected to 15 percent  $\text{O}_2$  shall be corrected to ISO standard conditions using the following equation. Notwithstanding this requirement, use of the ISO correction equation is optional for: Lean premix stationary combustion turbines; units used in association with heat recovery steam generators (HRSG) equipped with duct burners; and units equipped with add-on emission control devices:

$$NO_x = (NO_{x0}) \left[ \frac{P_r}{P_o} \right]^{0.5} e^{19(H_o - 0.00636)} \left[ \frac{288^\circ K}{T_a} \right]^{1.53}$$

where:

$NO_x$  = emission rate of NOx at 15 percent O2 and ISO standard ambient conditions, volume percent;

$NO_{x0}$  = observed NOx concentration, ppm by volume;

$P_r$  = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg;

$P_o$  = observed combustor inlet absolute pressure at test, mmHg;

$H_o$  = observed humidity of ambient air, g H2O/g air;

$e$  = transcendental constant, 2,718; and

$T_a$  = ambient temperature, °K. [§60.335(b)(1)]

- 3) The 3-run performance test required by §60.8 must be performed within ±5 percent at 30, 50, 75, and 90-to-100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine, including the minimum point in the operating range and 90-to-100 percent of peak load, or at the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice. If the turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel. Notwithstanding these requirements, performance testing is not required for any emergency fuel (as defined in §60.331). [§60.335(b)(2)]

**Recordkeeping:**

- 1) The permittee shall maintain record of reports required under §60.7, sulfur content of fuel being fired in the turbine on a daily basis if the turbine is supplied its fuel without intermediate bulk storage.
- 2) The permittee shall maintain records on-site for the most recent 60 months of all records required by this permit and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon request.

**Reporting:**

- 1) For the purposes of reports under §60.7, periods of excess emissions that shall be reported are defined as follows:
  - a) Sulfur dioxide: Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 percent. (Compliance with the custom fuel schedule is said to demonstrate compliance with this applicable standard.)
  - b) Emergency fuel: Each period during which an exemption provided in 40 CFR 60.332(k) is in effect shall be included in the report required in 40 CFR 60.7(c). For each period, the type, reasons, and duration of the firing of the emergency fuel shall be reported.
- 2) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than fifteen (15) days after the custom fuel schedule recordkeeping indicates and exceedance with the applicable standard pursuant to the regulation.

**PERMIT CONDITION (EU0010 through EU0030)-003**

10 CSR 10-6.060 Construction Permits Required

Construction Permit 122004-017, Issued December 29, 2004

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

**Emission Limitation:**

- 1) The permittee shall limit the emissions of NO<sub>x</sub> from emission units EU0010, EU0020 and EU0030 to 15.0 ppm, or 0.055 lbs/mmBTU set forth by Construction Permit No. 122004-017 (Permit Condition (EU0010 through EU0030)-001).
- 2) In lieu of complying with the above emission limit, the permittee may comply through the NO<sub>x</sub> 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 violate the permit conditions previously established under 10 CSR 10-6.060 or 10 CSR 10-6.065.

**Banking/Trading:**

- 1) NO<sub>x</sub> authorized account representative.
  - a) Each affected unit shall have only one NO<sub>x</sub> authorized account representative with respect to all matters under the NO<sub>x</sub> trading program. Each affected unit may have only one alternate NO<sub>x</sub> authorized account representative who may act on behalf of the NO<sub>x</sub> authorized account representative.
  - b) A NO<sub>x</sub> 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<sub>x</sub> authorized account representative or the alternate NO<sub>x</sub> authorized account representative.
- 2) Control Period NO<sub>x</sub> Allowances.
  - a) By October 31 following each control period, each NO<sub>x</sub> 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<sub>x</sub> unit.
  - b) By November 15th following each control period, the department will issue a notice to each NO<sub>x</sub> authorized account representative of the actual NO<sub>x</sub> allowances recorded in the unit compliance account for each affected NO<sub>x</sub> unit.
- 3) By the end of the NO<sub>x</sub> allowance transfer deadline<sup>1</sup>, each NO<sub>x</sub> unit shall have sufficient NO<sub>x</sub> allowances in their compliance account to allow for deductions in 10 CSR 10-6.350(3)(B)4.B.
  - a) The NO<sub>x</sub> allowances are available to be deducted for compliance with a unit's NO<sub>x</sub> emissions limitation for a control period in a given year only if the NO<sub>x</sub> 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<sub>x</sub> allowance transfer deadline for that control period.

<sup>1</sup> 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<sub>x</sub> 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.

- b) The NO<sub>x</sub> authorized account representative may identify by serial number the NO<sub>x</sub> 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<sub>x</sub> allowances may be banked for future use or transfer into a compliance account or an overdraft account, as follows:
- a) Any NO<sub>x</sub> allowance that is held in a compliance account or an overdraft account, will remain in such account until the NO<sub>x</sub> 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<sub>x</sub> allowance, any NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> allowances may be used for compliance in the control period for the current year.
- 6) Banked NO<sub>x</sub> 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.<sup>2</sup> and (3)(A)4.<sup>3</sup> are applicable to the control region for which 10 CSR 10-6.350(3)(A)1.<sup>4</sup> is applicable on a one and one-half to one (1.5:1) basis.
- 7) Banked NO<sub>x</sub> 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.<sup>4</sup>, (3)(A)3.<sup>2</sup>, and (3)(A)4.<sup>3</sup> are applicable to the control region for which 10 CSR 10-6.350(3)(A)2.<sup>5</sup> is applicable on a one and one-half to one (1.5:1) basis.
- 8) Banked NO<sub>x</sub> 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).
- 9) All ERCs will be retired on January 31, 2006.
- 10) The director may correct any error in any NO<sub>x</sub> Allowance Tracking System account. Within ten business days of making such correction, the director will notify the NO<sub>x</sub> authorized account representative for the account. The NO<sub>x</sub> authorized account representative will then have ten business days to appeal the correction if they feel the correction was made in error.
- 11) A NO<sub>x</sub> allowance transfer that is submitted for recording following the NO<sub>x</sub> allowance transfer deadline and that includes any NO<sub>x</sub> allowances allocated for a control period prior to or the same as the control period to which the NO<sub>x</sub> allowance transfer deadline applies will not be recorded until after completion of the process of recording of NO<sub>x</sub> allowance allocations of 10 CSR 10-6.350.
- 12) Where a NO<sub>x</sub> allowance transfer submitted for recording fails to meet the requirements of 10 CSR 10-6.350(3)(B)9.A., the department will not record such transfer.

<sup>2</sup> Cyclone EGUs located in the counties of Buchanan, Jackson, Jasper or Randolph.

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

<sup>4</sup> 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.

<sup>5</sup> EGUs located in the City of St. Louis and the counties of Franklin, Jefferson and St. Louis.

**Monitoring:**

- 1) Compliance shall be measured during the control period.
- 2) All valid data shall be used for calculating NO<sub>x</sub> emissions rates.
- 3) Any gas or oil-fired peaking unit that is subject to the emission limitation or trading aspects of 10-6.350 shall:
  - a) Install, certify, operate, maintain, and quality assure a NO<sub>x</sub> and diluent CEMS; or
  - b) Install, certify, operate, and quality assure fuel-metering equipment pursuant to 40 CFR part 75, Appendix D and shall establish a NO<sub>x</sub> -to-load curve pursuant to 40 CFR part 75, Appendix E;

**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.
- 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<sub>x</sub> allowances.
  - a) By March 1, 2004, the NO<sub>x</sub> authorized account representative for each affected unit shall submit to the department a report containing the following:
    - i) The projected control period NO<sub>x</sub> 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<sub>x</sub> allowances on a unit by unit and statewide basis for distribution on or before May 1 of each year.
- 3) NO<sub>x</sub> 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<sub>x</sub> authorized account representative;

- c) The NO<sub>x</sub> unit identification number and name;
  - d) The number of ERCs being requested; and
  - e) The overdraft or compliance account number.
- 4) The NO<sub>x</sub> authorized account representatives seeking the recording of a NO<sub>x</sub> allowance transfer shall submit the transfer request to the director. To be considered correctly submitted, the NO<sub>x</sub> 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<sub>x</sub> allowance to be transferred; and
  - c) The printed name and signature of the NO<sub>x</sub> authorized account representative of the transferor account and the date signed.
- 5) When a NO<sub>x</sub> opt-in unit becomes an affected unit, the NO<sub>x</sub> authorized account representative shall notify the department in writing of such change in the NO<sub>x</sub> 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<sub>x</sub> authorized account representative;
  - c) NO<sub>x</sub> unit name, compliance and overdraft account numbers;
  - d) NO<sub>x</sub> emission rate limitation (lb/mmBtu);
  - e) Actual NO<sub>x</sub> 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<sub>x</sub> 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.

**PERMIT CONDITION (EU0010 through EU0030)- 004**

10 CSR 10-6.270 Acid Rain Source Permits Required  
Permit No. OP2006-036

**Emission Limitation:**

The permittee shall obtain an Acid Rain Source Permit for EU0010 through EU0030 pursuant to Title IV of the Clean Air Act.

A Phase II permit (Missouri Department of Natural Resources project 2004-05-063, ORIS Code 56151) was issued to the permittee on June 19, 2006, with effective dates from January 1, 2005 to December 31, 2009. Sulfur dioxide (SO<sub>2</sub>) limitations are referenced in this existing Title IV: Phase II Acid Rain Permit for the installation.

**Monitoring/Recordkeeping:**

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

**Reporting:**

Annual Compliance Certification.

## 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 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. Qualified personnel shall perform all tests.
- 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 Aquila, South Harper Peaking Facility 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.**

**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*

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<b>10 CSR 10-6.280 Compliance Monitoring Usage</b>
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- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
  - 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.

A Phase II permit (Missouri Department of Natural Resources project 2004-05-063, ORIS Code 56151) was issued to the permittee on June 19, 2006, with effective dates from January 1, 2005 to December 31, 2009. Sulfur dioxide (SO<sub>2</sub>) limitations are referenced in this existing Title IV: Phase II Acid Rain Permit for the installation.

#### **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.

<b>10 CSR 10-6.065(6)(C)6 Permit Shield</b>
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- 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 APCP shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the APCP as above at least seven days before the change is to be made. If less than seven days notice is provided because of a need to respond

more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the 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:
  - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
  - b) The permittee must provide written notice of the change to the Air Pollution Control Program, 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.
  - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
  - d) The permit shield shall not apply to these changes.

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

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

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

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,

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

<b>10 CSR 10-6.065(6)(E)1.C Statement of Basis</b>
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This permit is accompanied by a statement setting forth the legal and factual basis for the permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

## **VI. Attachments**

Attachments follow.

**ATTACHMENT A**  
**Operational Schedule of the three Siemens-Westinghouse Turbines**

South Harper Peaking Facility  
Cass County, S29/32, T45N, R32W  
Installation ID Number: 037-0063  
Project Number: 2004-03-143  
Permit Number: \_\_\_\_\_

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_  
(month/year) (month/year)

**Copy this sheet as needed.**

Hours that Aquila is Producing Electricity = Electricity Hours		
A. Total Electricity Hours for this Month	(Note 1)	
B. 12-Month Total Electricity Hours From Previous Month's Worksheet	(Note 2)	
C. Monthly Total Electricity Hours From Previous Year's Worksheet	(Note 3)	
D. Current 12-Month Total Electricity Hours	(Note 4)	

- Note 1: Total number of hours that this installation had any of the three or combination of the three turbines (Emission Points EP-01, EP-02, EP-03) connected to the utility grid by closure of the generator breaker.  
Note 2: Running 12-month total of electricity hours from previous month's worksheet.  
Note 3: Electricity hours reported for this month in the last calendar year.  
Note 4: Amount reported in Note 2 minus amount reported in Note 3 plus amount reported in Note 1 ( $D = B - C + A$ ). Less than 5,000 hours indicates compliance.

**ATTACHMENT B**  
**Individual Turbine Operational Schedule**

South Harper Peaking Facility  
Cass County, S29/32, T45N, R32W  
Installation ID Number: 037-0063  
Project Number: 2004-03-143  
Permit Number: \_\_\_\_\_

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_  
(month/year) (month/year)

This sheet is for Turbine Emission Point EP- \_\_\_\_\_

**Copy this sheet as needed.**

Hours that a Turbine is Burning Natural Gas = Unit Gas Hours		
A. Total Unit Gas Hours for this Month	(Note 1)	
B. 12-Month Total Unit Gas Hours From Previous Month's Worksheet	(Note 2)	
C. Monthly Total Unit Gas Hours From Previous Year's Worksheet	(Note 3)	
D. Current 12-Month Total Unit Gas Hours	(Note 4)	

Note 1: Total number of hours that this turbine was burning natural gas for this month (unit gas hours).

Note 2: Running 12-month total of unit gas hours from previous month's worksheet.

Note 3: Unit gas hours reported for this month in the last calendar year.

Note 4: Amount reported in Note 2 minus amount reported in Note 3 plus amount reported in Note 1. (D = B - C + A)  
Less than 2,000 hours indicates compliance.







### Attachment E

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

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

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

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

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

## 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 June 7, 2006;
- 2) 2005 Emissions Inventory Questionnaire, received March 22, 2006; and
- 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.

None.

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

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

#### 10 CSR 10-6.100, *Alternate Emission Limits*

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

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

This regulation is not applicable to internal combustion engines operated outside of the Kansas City or St. Louis metropolitan areas, therefore it was not included in the permit.

#### 10 CSR 10-6.360, *Control of NO<sub>x</sub> Emissions From Electric Generating Units and Non-Electric Generating Boilers*

This regulation is not applicable to units located in Cass County, therefore it was not included in the permit.

#### 10 CSR 10-6.390, *Control of NO<sub>x</sub> Emissions From Large Stationary Internal Combustion Engines*

This regulation is not applicable to large stationary internal combustion engines located in Cass County, therefore it was not included in the permit.

### Construction Permit Revisions

Construction Permit 122004-017

- 1) Special Conditions 3A through 3I describe stack testing that must be performed by Aquila in order to determine compliance with the emission limits specified in the permit. These conditions describe testing procedures and scheduling. Special Condition F of this construction permit specifies reporting requirements associated with this testing. Because the stack tests have already been

completed these special conditions were not included in the operating permit under Permit Conditions (EU0010 through EU0030)-001, EU0040-001 and EU0050-001.

- 2) This permit authorized the construction of a Gas Heater and a Fire Pump. These units were permitted but not installed and the permittee has no plans to install them in the future. Special Conditions 1D and 1F, which limited the hours of operation of these units, were not included in this operating permit. If these units are installed in the future the permittee must amend this operating permit to include these conditions.

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

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

This subpart applies to stationary gas turbines constructed on or after October 3, 1977. This Subpart was applied to Emission Units EU0010 through EU0030, Combustion Turbines.

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

40 CFR Part 63 Subpart YYYY, *National Emission Standard for Hazardous Air Pollutants for Stationary Combustion Turbines*. This facility is not a major source of HAPs therefore this regulation does not apply to Emission Units EU0010 through EU0030, Combustion Turbines.

40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*. This facility is not a major source of HAPs and the combustion turbines at this facility are not Reciprocating Internal Combustion Engines, therefore this regulation does not apply to Emission Units EU0010, EU0020, and EU0030.

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

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

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

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

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

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

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

### Other Regulatory Determinations

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

This regulation applies to Emission Units EU0010 through EU0030, Combustion Turbines. However, the NO<sub>x</sub> emission limitation of 0.055 lbs NO<sub>x</sub>/million Btu heat input in Construction Permit 122004-017 is more stringent than the 0.35 lbs NO<sub>x</sub>/million Btu of heat input, therefore it was included in permit condition (EU0010-EU0030)-003. The following calculation shows the conversion from the 15 ppmv NO<sub>x</sub> limit in the construction permit to 0.055 lbs NO<sub>x</sub>/million Btu heat input.

Concentration Conversion from ppmv to pounds of NO<sub>x</sub> per million BTU of heat input:

- 1) Multiply by  $1.194 \times 10^{-7}$  (conversion to lb NO<sub>x</sub> /dscf from 40 CFR Part 60 App. A, Method 19)
- 2) Multiply by dry F factor (ratio of gas volume of products of combustion to heat content of fuel), which is 8,710 dscf/mmBtu for natural gas
- 3) Multiply by 20.9, then divide by 5.9 (correction to 15% oxygen, from Equation 19-1 in 40 CFR Part 60 App. A, Method 19)

For EU0010, EU0020, EU0030 - natural gas units with a CP limit of 15ppmv:

$$(15 \text{ ppmv})(1.194 \times 10^{-7}) = \frac{2.985 \times 10^{-6} \text{ lbNO}_x}{\text{dscf}} \times \frac{8710 \text{ dscf}}{\text{mmBtu}} \times \frac{20.9}{20.9 - 15} = 0.055 \frac{\text{lbNO}_x}{\text{mmBtu}}$$

The construction permit is much more restrictive than 10 CSR 10-6.350.

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

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

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

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

Prepared by:



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Jill S. Wade, P.E.  
Environmental Engineer