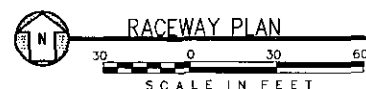
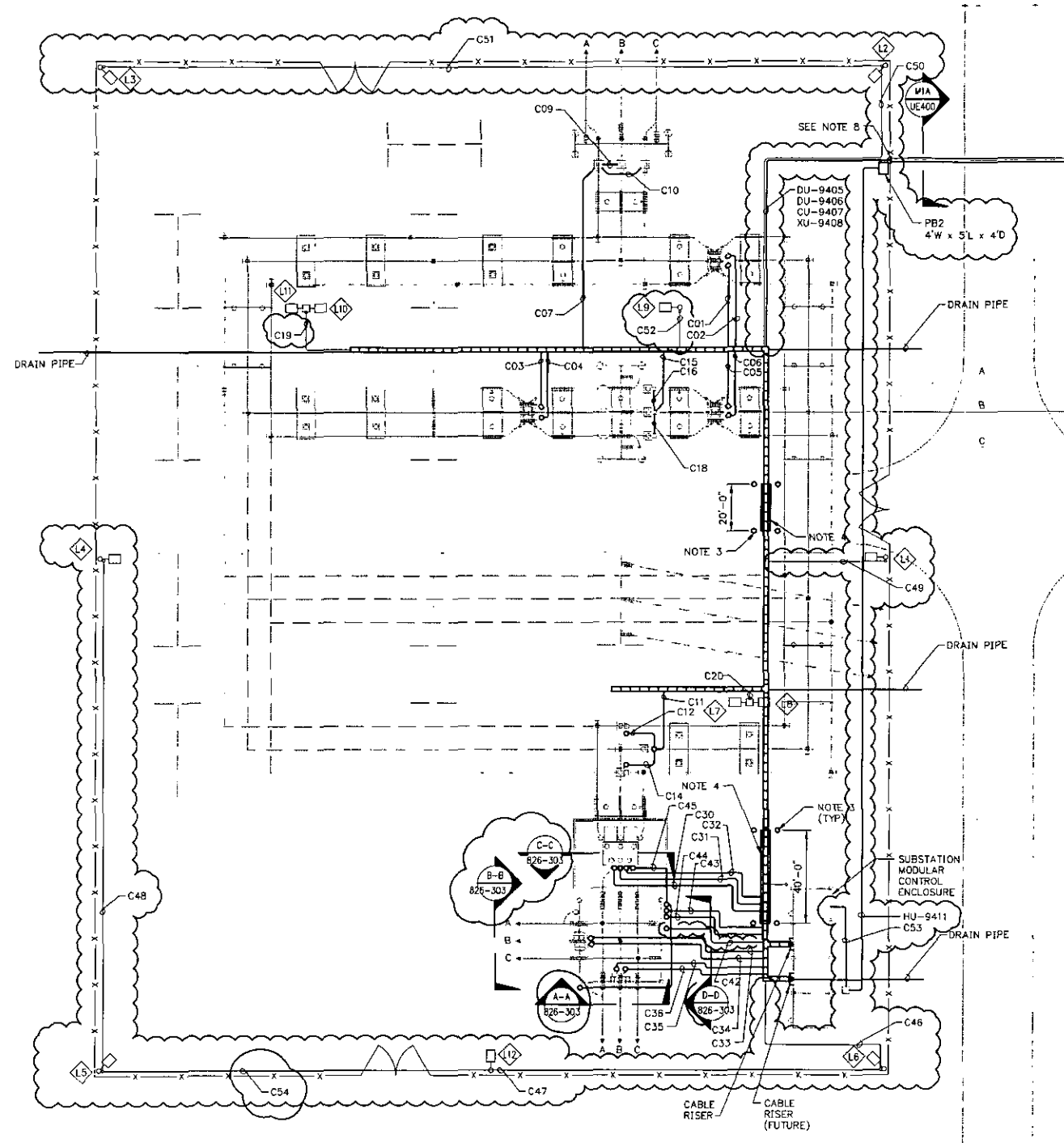
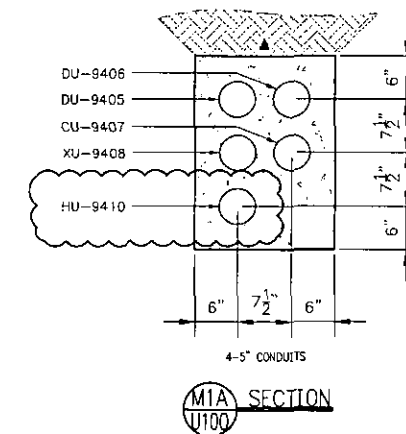


APPENDIX E
Facility Lighting Plan



- NOTES:**
1. ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC BURIED A MINIMUM OF 2'-6" BELOW UNFINISHED GRADE UNLESS OTHERWISE NOTED.
 2. ABOVE GRADE CONDUIT SHALL BE RGS UNLESS OTHERWISE NOTED.
 3. CONSTRUCTION CONTRACTOR SHALL INSTALL 3'-0" HIGH, CAPPED 4" INCH RGS POLE, PAINTED YELLOW, EMBEDDED IN 3'-0" OF CONCRETE TO MARK THE DRIVEABLE SECTIONS OF THE CABLE TRENCH.
 4. ALL SECTIONS OF DRIVEABLE SECTIONS OF CABLE TRENCH SHALL BE LENGTH AS SHOWN.
 5. ROUTE 4 INCH DIAMETER TRENCH DRAIN PIPES TO DAYLIGHT. APPROXIMATE ROUTING IS SHOWN. SLOPE PIPE AT A MINIMUM OF 1.00 PERCENT TO PROVIDE POSITIVE DRAINAGE AWAY FROM TRENCH. INSTALL DRAIN OUTLET PER DWG. NO. 102-302 AT DAYLIGHT POINT.
 6. SEE MANUFACTURER'S DRAWINGS FOR CABLE TRENCH INSTALLATION DETAILS.
 7. SEE DWG. NO. 102-302 FOR CONTROL ENCLOSURE CABLE TRAY RISER TO CABLE TRENCH DETAIL.
 8. AT TRANSITION FROM CONCRETE USE RIGID STEEL CONDUIT UNTIL A MINIMUM BURY OF 30" THEN TRANSITION TO SCHEDULE 40 PVC. CN-203 TO EXTEND CONDUITS FROM END OF DUCTBANK BY CN-201 TO CABLE TRENCH AS SHOWN.
 9. CONDUIT ROUTING IS DIAGNATIC AND ACTUAL ROUTING MAY BE DIFFERENT.



- LEGEND:**
- LIGHTNING SHIELDING MAST WITH LIGHTS
 - PRECAST CABLE TRENCH
 - DRIVEABLE SECTION PRECAST CABLE TRENCH
 - DIRECT BURIED CONDUIT
 - 4" PVC DRAIN PIPE
 - LIGHTS

REV.	DATE	DESCRIPTION	DWN	CHK
0	11-15-04	ISSUED FOR BID	BGG	AM
1	11-04-05	ISSUED FOR CONSTRUCTION	BGG	AM
2	1-28-05	ISSUED WITH CN-203-S.I.-001	DMS	AM
3	2-9-05	ISSUED FOR CN-203-S.I.-002	DMS	AM

Sealed Only When Signed in Blue Ink



Engineers - Architects - Technicians
Design - Construction - Field Service

16041 Foster
P.O. Box 1000
Stilwell, Kansas 66085-1000

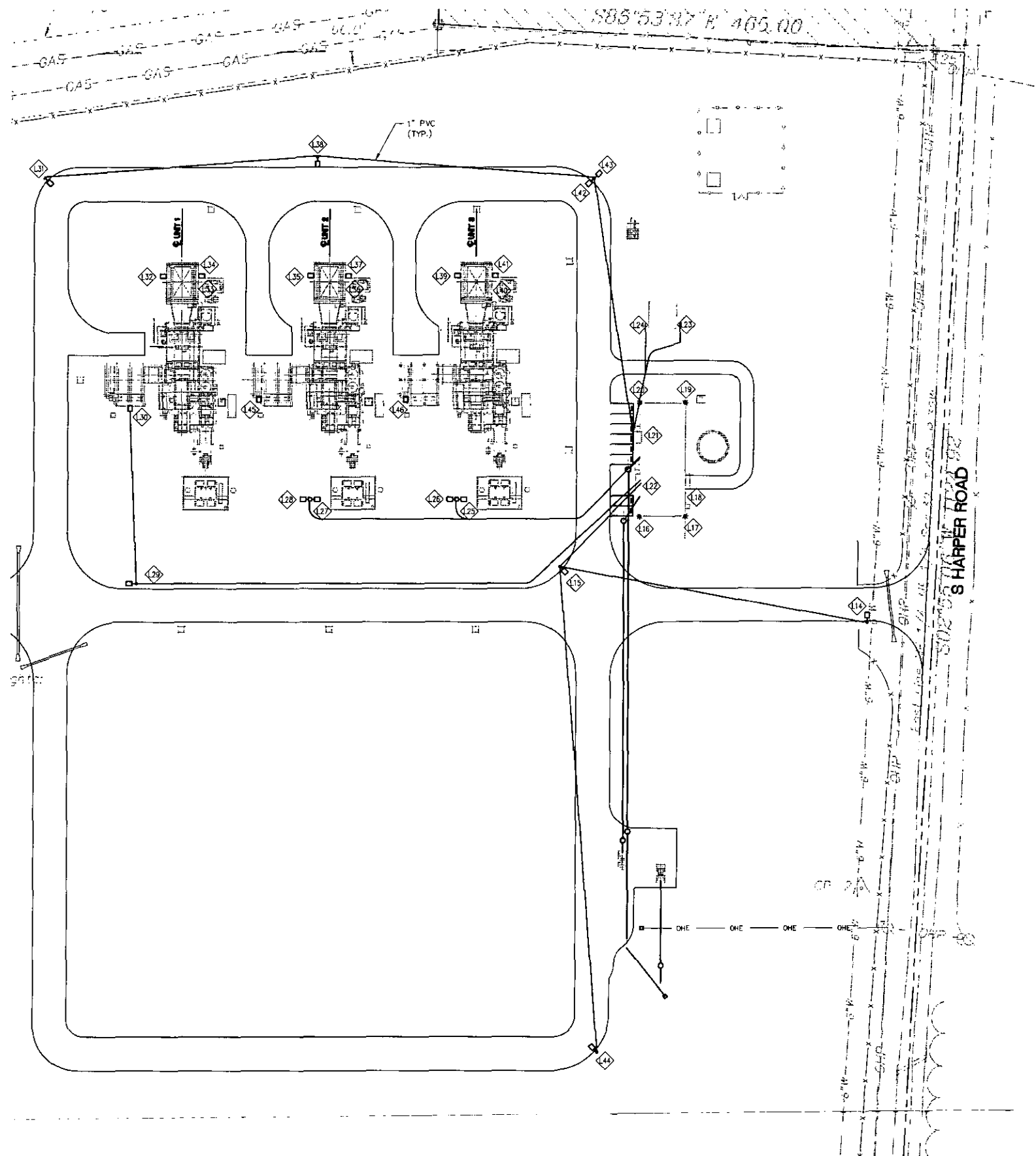


AQUILA INC.

SOUTH HARPER PEAKING FACILITY
151KV SUBSTATION
RACEWAY PLAN

DESIGN BY: JKB	CHECKED BY: JKB
DRAWN BY: RLK	DATE: 5-24-04
CLIENT I.D. AQU00108	SEGA PROJECT NO. 04-0112

CADD FILE NAME: 04112-826-300	DRAWING NO. 826-300	REV. 3
-------------------------------	------------------------	-----------



SITE LIGHTING PLAN
SCALE IN FEET

NOTES:
1. FOR LIGHTS ON CEILING BUILDING & STACK, USE CONDUITS
XU-1039 FROM EMH-4 TO EMH-1, THEN USE -PU-1024 FROM
EMH-1 TO -CEM. NEW CONDUITS FROM THERE TO LIGHTS.

REV.	DATE	DESCRIPTION	DWN	CHK
0	2-17-05	ISSUED WITH CN 201 SI-013	BGG	AM

Sealed Only When Signed in Blue Ink

Sega
Engineers - Architects - Technicians
Design - Construction - Field Service
16041 Foster
P.O. Box 1000
Stillwell, Kansas 66085-1000

Aquila

AQUILA INC.
SOUTH HARPER PEAKING FACILITY
CONTRACT 201 SITE PREP & SUBSTRUCTURES
SITE LIGHTING PLAN

DESIGN BY: A. MENDENHALL	CHECKED BY: A. MENDENHALL
DRAWN BY: B. GASPERS	DATE: 9-21-04
CLIENT I.D. AQU00108	SEGA PROJECT NO. 04-112
CADD FILE NAME: 04112-E301	

DRAWING NO. E301	REV. 0
----------------------------	------------------

APPENDIX F

Facility Security Guidance Documents

Drivers for Aquila's Homeland Security Infrastructure Protection (HSIP) project

1. ***Presidential Decision Directives 62, and 63, Executive Order 13010 and Homeland Security Presidential Directive 7:***
Established the designation and government intent to protect the nation's critical infrastructure. It further identified energy companies (gas and electric) as being subject to that designation.
2. ***US Patriot Act, Section 1016 (short titled the Critical Infrastructure Protection Act of 2001):***
Demonstrated Congress' intent to protect the critical infrastructure.
3. ***Federal Energy Regulatory Commission (FERC):***
First established their intent to secure the electricity sector in their failed notice of proposed rulemaking (NOPR) relating to the Standard Electricity Market Design.
4. ***106 FERC 61,220, 18 CFR Part 35 (March 5, 2004), Section 2.3 and Commission Conclusion:***
Stated FERC's expectation that Transmission Providers, Market Participants and Interconnection Customers will comply with the recommendations of the National Infrastructure Protection Center, as well as any best practice recommendations or requirements that may be issued by North American Electric Reliability Council (NERC) or any other electric reliability authority.
5. ***FERC Docket No. PL04-5-001 (February 5, 2005):***
Confirmed FERC's requirements that "Good Utility Practice" includes compliance with the new reliability standards adopted by the NERC, and calling for Congressional legislation providing federally enforceable regime of mandatory reliability.
6. ***National Association of Regulatory Utility Commissioners (NARUC), February 2005:***
Adopted a resolution recommending to state commissioners that they make NERC reliability standards mandatory, including all relevant standards relating to cyber security and physical security.
7. ***NERC's Emergency Action Standard:***
Requires companies to certify that certain, specific cyber and physical security measures have been taken to protect critical infrastructure.
8. ***NERC Security Guidelines for the Electricity Sector, June 2002:***
Provides guidance and best practices for physical and cyber security.
9. ***NERC CIP – 004-01 (1303 Standard):***
NERC CIP – 003-01: extends the protection of cyber security assets to generation

plant control rooms, black start generators and substations associated with transmission lines (based upon company's critical assets list).

10. ***49 CFR Part 172 Hazardous Material Security:***

Defines the identification of hazardous materials within the stated standards, special security planning and training for the protection of those chemicals and personnel screening of affected persons.

11. ***DOT-OPS Pipeline Security Information Circular, dated September 5, 2002:***

Requires identification of critical facilities; development and implementation of a security plan and annual review of the plans and compliance reflecting changing conditions.

12. ***Aquila's State leaders Designation of Critical Facilities and Operations, December 2004:***

Established the functional locations/departments designated as critical or key sites. The site designation criteria and final list was developed in conjunction with an operations group chaired by two State Operating Vice Presidents. This plan was subsequently endorsed by Aquila's Chief Operating Officer, Chief Executive Officer and addressed in a letter for the Board of Directors discussing Aquila's fiduciary compliance to security protection and anti-terrorism.

APPENDIX G

West Peculiar Fire Department Equipment List
FM Global Report

**Aquila**

Terry Hedrick
Director Of Generation Services
Generation
Power Supply

Aquila Networks
10700 East 350 Highway
P.O. Box 11739
Kansas City, MO 64138-1872
Tel 816-737-7854
Fax 816-743-3854
terry.hedrick@aquila.com

September 26, 2005

West Peculiar Fire Protection District
Doug Short, Assistant Fire Chief
200 South Main
Peculiar, MO 64078

Dear Mr. Short:

As per previous discussions with Loren Simmons (Aquila Safety), it is the desire of Aquila to partner with The West Peculiar Fire Protection District (Fire District) on Confined Space Rescue Equipment. As per your submitted "Needs Proposal", Aquila agrees to reimburse the Fire District for items including:

- | | |
|-------------------------------|--------------------|
| ▪ Rescue Tri-pod | ▪ Rescue Descender |
| ▪ Pre-rigged Haul Kit | ▪ NFPA Caribiner |
| ▪ Class III Full Body Harness | ▪ Rescue Pulley's |
| ▪ SKED Rescue Stretcher | ▪ Anchor Straps |
| ▪ 1/2" Rescue Rope 200' | ▪ Pick-off Straps |
| ▪ 6mm Prussik Cord 150; | ▪ Rigging Bags |
| ▪ Tubular Webbing | ▪ Helmets |
| ▪ Petzl Ascender | |

This letter will serve as a document authorizing the Fire District to purchase the above described items, with the commitment from Aquila to provide a check to the Fire District to reimburse related costs (not to exceed \$6,000). Aquila also commits to have Loren Simmons work with the Fire District towards training that will meet Aquila's Confined Space Rescue requirements for the South Harper Peaking Facility.

If you have any questions, feel free to contact me at 816-737-7854.

Sincerely,

Terry S. Hedrick
Generation Services Manager

cc: Keith Stamm
Norma Dunn
Max Sherman
Lynn Wilson
Bryan Didier
Loren Simmons
Cindy Reed



FM Global Risk Report

Focus Visit Summary Aquila, Inc.

24110 South Harper Road
Peculiar, Missouri 64078-9086
USA

Equipment Hazards Focused Risk Evaluation

Visit by: Raymond O. Forest
Visit date: 08 November 2007
Conference with: Mr. Tom Miller, Plant Manager

Visit Objective

This was a focus visit to evaluate and review the past year's operation and maintenance.

Comments

This facility has three combustion turbine-generator units and all were commissioned for commercial use in July 2005. These units had state-of-the-art installation and are equipped with 100% redundant electrical protection. The operating condition of these units is excellent and the maintenance-issued work orders were all found to be current.

Unit No. 1 operating hours for 2007 are 462.8, starts are 72 and 1 failed start; Unit No. 2 operating hours for 2007 are 613.7, starts are 88 and no failed starts; and Unit No. 3 operating hours are 715.1, starts are 95 and 2 failed starts.

The last electronic overspeed trip test on all three units was conducted on February 27, 2007. The Siemens representative was involved in conducting this overspeed trip test by lowering the set point trip rpm to 600 rpm. The Unit No. 1 tripped at 603 rpm, Unit No. 2 tripped at 599 rpm, and Unit No. 3 tripped at 601 rpm. The plant personnel do not have the authority to change the set point for testing unless the Siemens representative is on-site. This testing is next scheduled for spring 2008.

These units are equipped with two AC-driven lube oil pumps and one DC-driven lube oil pump for each unit. These primary and emergency backup oil pumps were last tested as part of the PM program. This testing is conducted before each start to verify the proper operation and the unit will not start if the DC lube oil pump fails to start in the automatic mode. The logic in the computer tests the emergency lube oil pumps weekly.

The combustion turbine logs and walk-down checklist was reviewed and found to be up to date. These logs and the walk-down checklist is filled out every hour while the unit is online. The daily walk-down checklist is filled out three times a day and was found to be up to date.

Factory Mutual Insurance Company (FM Global) has developed this report for insurance underwriting purposes. The report is provided to you for informational purposes only to reduce the possibility of loss to property by bringing to your attention certain potential hazards or conditions. You must make the decision whether to take any action. FM Global undertakes no duty to any party by providing this report or performing the activities on which it is based. The liability of FM Global is limited to that contained in its insurance policies.

Ongoing Services

FM Global is available to provide support in all areas of property loss prevention. These services include:

- New equipment installation reviews
- Electrical system evaluations
- Equipment preventive maintenance planning

For access to these services, contact one of the following:

St. Louis Operations:

FM Global
540 Maryville Centre Drive, Suite 400
St. Louis, MO 63141
USA
[1] (314) 453 9660

Stephen F. Dixon,

Account Engineer (Equipment):

FM Global
540 Maryville Centre Drive, Suite 400
St. Louis, MO 63141
USA
[1] (314) 453 9660

Reference Information

Focus Visit Summary

Aquila, Inc.
24110 South Harper Road
Peculiar, Missouri 64078-9086
USA

Equipment Hazards
Focused Risk Evaluation

Visit by:

Raymond O. Forest

Visit date:

08 November 2007

Site Contact:

Mr. Tom Miller, Plant Manager at +1 816 7438425,
tom.miller@aquila.com

Final Conference Attendees:

Mr. Tom Miller, Plant Manager

Location Index Number:

000885.30-01

Account Number:

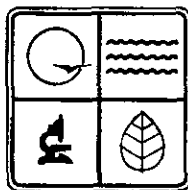
1-56895

APPENDIX H

Permits

Permit to Construct

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI AIR CONSERVATION COMMISSION



PERMIT TO CONSTRUCT

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

Permit Number: **122004-017**

Project Number: **2004-03-143**

Owner: **Aquila, Incorporated**

Owner's Address: **20 West 9th Street, Kansas City, Missouri 64105**

Installation Name: **South Harper Peaking Facility**

Installation Address: **24110 S. Harper Road, Peculiar, Missouri 64078**

Location Information: **Cass County, S29/32, T45N, R32W**

Application for Authority to Construct was made for:

Installation of three natural gas fired simple cycle combustion turbines, a 9.8 million Btu per hour natural gas fired heater, and a 0.47 million Btu per hour emergency diesel fire pump to generate a total nominal electrical power output of 341 megawatts during peak electricity demand periods. This review was conducted in accordance with Section (8), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

☐ Standard Conditions (on reverse) are applicable to this permit.

☒ Standard Conditions (on reverse) and Special Conditions (listed as attachments starting on page 2) are applicable to this permit.

DEC 29 2004

EFFECTIVE DATE


DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Matt Blunt, Governor • Doyle Childers, Director

www.dnr.mo.gov

NOV 26 2007

CERTIFIED MAIL: 7004 1350 0003 1414 3862
RETURN RECEIPT REQUESTED

Mr. Scott Heidtbrink
Vice President
Aquila, South Harper Peaking Facility
24400 South Harper Road
Peculiar, MO 64078

RE: Aquila, South Harper Peaking Facility
Installation ID: 037-0063
Permit Number: OP2007-062

Dear Sir/Madam:

Enclosed with this letter is your Part 70 operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations, cited in this document, is necessary for continued compliance. It is very important you read and understand the requirements contained in your permit.

You may appeal this permit to the Administrative Hearing Commission, P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the Administrative Hearing Commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the Administrative Hearing Commission.

If you have any questions or need additional information regarding this permit, please contact Ms. Jill Wade with the departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or by telephone at (573) 751-4817. Thank you for your time and consideration.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

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

MJS:jwn

Enclosure

c: Ms. Tamara Freeman, U.S. Environmental Protection Agency Region VII
Kansas City Regional Office
PAMS File: 2006-06-037

Recycled Paper



Missouri Department of Natural Resources
Air Pollution Control Program

PART 70 PERMIT TO OPERATE

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

Operating Permit Number: 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 9th
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

Aquila, South Harper Peaking Facility
Installation ID: 037-0063

Part 70 Operating Permit

2
Project No. 2006-06-037

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Aquila, South Harper Peaking Facility
Installation ID: 037-0063

Part 70 Operating Permit

3

Project No. 2006-06-037

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 _x)	Nitrogen Oxides (NO _x)	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

Aquila, South Harper Peaking Facility
Installation ID: 037-0063

Part 70 Operating Permit

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Project No. 2006-06-037

II. Plant Wide Emission Limitations

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

None.

III. Emission Unit Specific Emission Limitations

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

EU0010 through EU0030 Combustion Turbines			
Emission Unit	Description	Manufacturer/Model #	2006-EIQ Reference #
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 Missouri Department of Natural Resources' Air Pollution Control Programs' 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]

Aquila, South Harper Peaking Facility
Installation ID: 037-0063

Part 70 Operating Permit

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Project No. 2006-06-037

- 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 NOx emissions discharged into the atmosphere. The CEMS shall be installed and operated according to the guidelines in 40 CFR Part 75 for the NOx 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 (O2) content of the flue gases at each location where NOx emissions are monitored. The O2 content of the flue gases may be determined by use of either an O2 CEMS or a CO2 CEMS. If Aquila elects to use a CO2 CEMS, the conversion process in EPA Method 20 must be used to correct the NOx concentrations to 15 percent O2. [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 Programs' Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten 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]

Aquila, South Harper Peaking Facility
Installation ID: 037-0063

Part 70 Operating Permit

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Project No. 2006-06-037

- 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 §50.7(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 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 (NO_{Xo}) corrected to 15 percent 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:

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

where:

NO_x = emission rate of NO_x at 15 percent O_2 and ISO standard ambient conditions, volume percent;

NO_{xo} = observed NO_x 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 H_2O /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 owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in §60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration: [§60.334(h)(3)(i) and (ii)]
 - a) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
 - b) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf.
- 3) 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.)

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- 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 Programs' Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 15 days after the custom fuel schedule recordkeeping indicates and exceedance with the applicable standard pursuant to the regulation.

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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_x 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_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 violate 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.
- 3) By the end of the NO_x allowance transfer deadline¹, 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.

¹ 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.

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- 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)3.² and (3)(A)4.³ are applicable to the control region for which 10 CSR 10-6.350(3)(A)1.⁴ 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)2.⁵ 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).
- 9) All ERCs will be retired on January 31, 2006.
- 10) The director may correct any error in any NO_x Allowance Tracking System account. Within ten business days of making such correction, the director will notify the NO_x authorized account representative for the account. The NO_x 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_x allowance transfer that is submitted for recording following the NO_x allowance transfer deadline and that includes any NO_x allowances allocated for a control period prior to or the same as the control period to which the NO_x allowance transfer deadline applies will not be recorded until after completion of the process of recording of NO_x allowance allocations of 10 CSR 10-6.350.
- 12) Where a NO_x 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.

² Cyclone EGUs located in the counties of Buchanan, Jackson, Jasper or Randolph.

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

⁴ 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.

⁵ EGUs located in the City of St. Louis and the counties of Franklin, Jefferson and St. Louis.

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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 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_x 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_x -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 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_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 most recent control period heat inputs, unless those three 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;

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- 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.

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 (SO₂) limitations are referenced in this existing Title IV: Phase II Acid Rain Permit for the installation.

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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.

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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.

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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 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.

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- 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.

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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.

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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.

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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.

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- 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 (SO₂) 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.

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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

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- 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 the Environmental Protection Agency (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.

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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 APCP as soon as possible after learning of the need to make the change.
 - b) The permit shield shall not apply to these changes.

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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 Mr. 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;

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- b) The effective date of the requirement is later than the date on which the permit is due to expire;
or
- c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit;
or
- 5) Missouri Department of Natural Resources or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

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

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

VI. Attachments

Attachments follow.

Aquila, South Harper Peaking Facility
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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.

Garnett Wood Products
Installation ID: 091-0038

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Project No. 2005-05-047

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.

Garnett Wood Products
Installation ID: 091-0038

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Project No. 2005-05-047

Attachment C1

Emission Unit																										
Observer	Date																									
Sky Conditions																										
Precipitation																										
Wind Direction	Wind Speed																									
<p>Sketch process unit: Indicate the position relative to the source and sun; mark the potential emission points and/or the observing emission points.</p>																										
<table border="1"> <tr> <td>Begin Observation</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>End Observation</td> <td></td> <td></td> </tr> </table>			Begin Observation																					End Observation		
Begin Observation																										
End Observation																										

Garnett Wood Products
Installation ID: 091-0038

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Attachment C2[illegible]

Garnett Wood Products
Installation ID: 091-0038

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Attachment D

An example of a log for noting when an equipment malfunction causes visible emissions.

[illegible]

Garnett Wood Products
Installation ID: 091-0038

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Project No. 2005-05-047

Attachment E

Company	Observer
Location	Observer Certification Date
Date	Emission Unit
Time	Control Device

0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								

Readings ranged from _____ to _____ % opacity.

Was the emission unit in compliance at the time of evaluation?

YES NO Signature of Observer _____

Aquila, South Harper Peaking Facility
Installation ID: 037-0063

Part 70 Operating Permit

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Project No. 2006-06-037

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 NOx 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 NOx 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.

Aquila, South Harper Peaking Facility
Installation ID: 037-0063

Part 70 Operating Permit

SB - 2

Project No. 2006-06-037

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.

Aquila, South Harper Peaking Facility
Installation ID: 037-0063

Part 70 Operating Permit SB-1
Project No. 2006-06-037

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_x emission limitation of 0.055 lbs NO_x/million Btu heat input in Construction Permit 122004-017 is more stringent than the 0.35 lbs NO_x/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_x limit in the construction permit to 0.055 lbs NO_x/million Btu heat input.

Concentration Conversion from ppmv to pounds of NO_x per million BTU of heat input:

- 1) Multiply by 1.194×10^{-7} (conversion to lb NO_x/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.

Aquila, South Harper Peaking Facility
Installation ID: 037-0063

Part 70 Operating Permit

SB - 2

Project No. 2006-06-037

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

Prepared by:



Jill S. Wade, P.E.
Environmental Engineer

Ground Level Emissions Comparison Memo



Aquila

Memo

To: Keith Stamm, Norma Dunn, Lynn Wilson, Max Sherman
From: Block Andrews *BA*
Date: September 23, 2005
Subject: Comparison of Original MDNR modeling to as-built S. Harper Plant

To help understand the South Harper pollutant impacts on our neighbors, Aquila has gone back to compare the original pollutant impact estimates made by Missouri Department of Natural Resources (MDNR) and Burns & McDonnell to pollutant impacts based on stack testing results. In the original MDNR modeling, they used our permitted emission rates and Siemens-Westinghouse data for the modeling inputs. For the updated modeling runs, Aquila asked Burns & McDonnell to use the same model as MDNR with the same inputs except to update the modeling with our recent stack testing results which include actual emissions, flow rates and stack temperatures and stack height. The results of the comparison are shown the table below.

Comparison of Pollutant Impacts (micrograms/meter cubed)		
Pollutant (time average)	MDNR memo	Actual results
Carbon Monoxide (1 hour)	76.3	58.4
Carbon Monoxide (8 hour)	24.8	15.8
Nitrogen Oxide (Annual)	0.39	0.02
Particulate Matter (24 hour)	2.6	0.32
Particulate Matter (Annual)	0.04	0.01
Formaldehyde (24 hour)	0.024	Non Detectable
Formaldehyde (Annual)	0.0005	Non Detectable

MDNR's October 19, 2004 letter stated that the original impacts were "insignificant". The actual results are much reduced compared to the MDNR earlier estimates. The primary reasons for the reduction were a combination of the following factors:

- Aquila constructed a taller stack to mitigate noise but this also serves to better disperse the pollutants,
- measured emissions were less than MDNR's permitted levels,
- measured temperatures were warmer than Siemens-Westinghouse estimates. A warmer exhaust gas causes more dispersion,
- measured stack exhaust flows were greater than Siemens-Westinghouse estimates resulting in lower ground level concentrations, and
- Aquila had a diesel fire pump and gas heater emissions in the original MDNR modeling. These pieces of equipment were not constructed. The diesel fire pump was not needed since city water is available to the plant for fire protection. The natural gas heater is not needed because the natural gas temperature is currently adequate for efficient plant operation.

Please call me at 527-1354 if you have questions.

The University of Kansas Medical Center

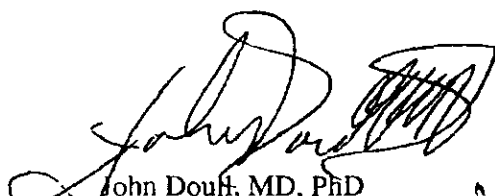
School of Medicine
Department of Pharmacology
Toxicology and Therapeutics

November 11, 2005

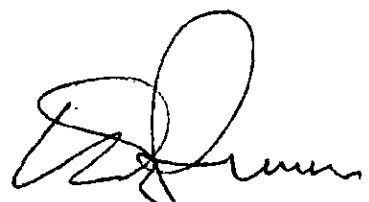
Block Andrews
Aquila, Inc.
20 W 9th St.
Kansas City, MO 64105

Dear Mr. Andrews,

We have reviewed levels of pollutants inside the stack compared to ambient concentration, provided for us by your office. In order to establish a perspective, we added a column listing TLVs (Threshold Limit Value) for the pollutants in a separate column. TLVs are occupational exposure recommendations promulgated by OSHA to become legally binding PELs. TLVs are designed to protect nearly all workers from any adverse health effect during 8 hour work days, 5 times a week for a 45 year working life. All pollutants are about 100 to 10 million times lower than the respective pollutants with the exception of nitrogen oxides, carbon monoxide and particulate matter, which are in the range of their respective TLVs. Therefore, from the pollution point of view the inside of the stack represents an acceptable work environment. Considering the enormous dilution of the air leaving the stack, it is our opinion as toxicologists that there cannot possibly arise any adverse health effect in anybody, even if they lived in the immediate vicinity of the stack.



John Douff, MD, PhD
Professor Emeritus



Karl K. Rozman, PhD, DABT
Professor of Pharmacology

Pollutant	Measured in stack conc. (ppb)	Background levels (ppb)	TLV conc. (ppb)
PAH	0.092	0.043	not available
Napthalene	0.034	0.017	10,000
1, 3 Butadiene	non detected	0.004	2,000
Benzene	0.8	0.15	500
Ethylbenzene	non detected	0.012	100,000
Toluene	0.42	0.7	50,000
Xylene	non detected	0.02	100,000
Formaldehyde	20.54	28.8	ceiling 300
Acetaldehyde	non detected	0.8	ceiling 25,000
Acrolein	non detected	1.2	ceiling 100
Nitrogen Oxides	12.2 (ppm)	unknown	nitric oxide + nitrogen oxide: 25ppm + 3ppm
Carbon monoxide	21.8 (ppm)	unknown	25 ppm
Particulate (<10 microns)	0.0027 (g/m ³)	unknown	<3mg/m ³ respirable or <10mg/m ³ inhalable

* For Nox, CO and particulate, a modeled ambient concentration can be given if you need it.

NPDES Land Disturbance Permit

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

GENERAL PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-R106798

Owner: Aquila, Inc.
Address: 20 West Ninth Street, Kansas City, MO 64106

Continuing Authority: Same as above
Address: Same as above

Facility Name: South Harper Peaking Facility
Address: 24110 S Harper Road, Peculiar, MO 64708

Legal Description: NE ¼, NE ¼, Sec. 32, T45N, R32W, Cass County

Receiving Stream: Lake Annette (U)
First Classified Stream and ID: S Grand River (P) (01249)
USGS Basin & Sub-watershed No.: 10290108-020003

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

All Outfalls

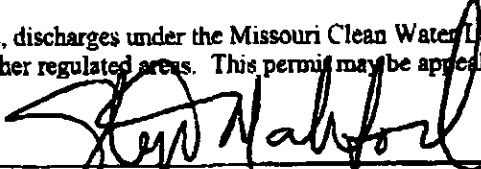
Construction or land disturbance activity (e.g., clearing, grubbing, excavating, grading, and other activity that results in the destruction of the root zone).

This permit authorizes only wastewater, including storm waters, discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

February 8, 2002
Effective Date

October 1, 2004
Issued Date

February 7, 2007
Expiration Date
MO 780.1001 (7-04)


Stephen M. Mahford, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission


James R. Maury, Director, Kansas City Regional Office

Dust Control Notification



Aquila

Jeff Creason
Environmental Services
P.O. Box 11739
10700 East 350 Highway
Kansas City, MO 64138
phone (816) 737-7527
fax (816) 743-2931
jeff.creason@aquila.com

May 19, 2005

Ms. Tanya Fells
Missouri Department of Natural Resources
Kansas City Regional Office
500 NE Colburn Road
Lee's Summit, MO 64086

RE: Aquila - South Harper Peaking Facility
24110 S. Harper Road, Peculiar, Missouri 64105
Dust Suppression

Dear Ms. Fells:

This letter is a follow-up to your meeting yesterday with Shiela Wheeler of Burns & McDonnell regarding the National Pollutant Discharge Elimination System (NPDES) application for the above referenced facility. The application describes the proposed use of turbine evaporator cooler blowdown for on-site land irrigation. As mentioned yesterday, Aquila intends to temporarily use the evaporative cooling water to control dust on-site and water newly planted vegetation. For this purpose, evaporator cooling water collected during operation of the turbines will be loaded into a water truck and distributed on-site. The total water volume that will be generated during turbine testing and operation before completion of the irrigation system is unknown, but expected to be relatively small. The rates of water production, and constituent concentrations will not exceed those listed in the permit application.

If you have any questions regarding this letter, please contact me at (816) 737.7527.

Sincerely,

Jeff Creason
Environmental Engineer

cc: Shiela Wheeler, Burns & McDonnell
Tom Miller
Allan Dancy
Steve Brooks
Block Andrews

NPDES Land Irrigation Permit

South Harper Peaking Facility
MO-0131857, Cass County

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Aquila
20 West 9th Street
Kansas City, MO 64106

Dear Permittee:

Pursuant to the Federal Water Pollution Control Act, under the authority granted to the State of Missouri and in compliance with the Missouri Clean Water Law, we have issued and are enclosing your State Operating Permit to discharge from South Harper Peaking Facility.

Please read your permit and attached Standard Conditions. They contain important information on monitoring requirements, effluent limitations, sampling frequencies and reporting requirements.

Monitoring reports required by the special conditions must be submitted on a periodic basis. Copies of the necessary report forms are enclosed and should be mailed to the regional office listed below. Please contact that office for additional forms.

This permit is both your Federal Discharge Permit and your new State Operating Permit and replaces all previous State Operating Permits issued for this facility under this permit number. In all future correspondence regarding this facility, please refer to your State Operating Permit number and facility name as shown on page one of the permit.

If you were affected by this decision, you may appeal to have the matter heard by the administrative hearing commission. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission.

If you have any questions concerning this permit, please do not hesitate to contact the Kansas City Regional Office at 500 NE Colbern Rd., Lee's Summit, MO 64086 (816) 622-7000.

Sincerely,

KANSAS CITY REGIONAL OFFICE


Karl Fett
Regional Director

KF:

Enclosure

c:

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0131857

Owner: Aquila
Address: 20 West 9th Street, Kansas City, MO 64106

Continuing Authority:
Address: Same as above

Facility Name: South Harper Peaking Facility
Facility Address: 24400 S. Harper Road, Peculiar, MO 64708

Legal Description: NE ¼, NE ¼, Sec. 32, T45N, R32W, Cass County

Receiving Stream: Unnamed Tributary to Annette Lake (U)
First Classified Stream and ID: Annette Lake (L3) (07220)
USGS Basin & Sub-watershed No.: (10290108-020003)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Outfall #001 - Supplemental Gas Turbine Power Station - SIC #4911
Non-contact cooling water only. No-discharging system. Enclosed above ground storage tank/industrial irrigation system.

Design flow is 100,000 gallons per day.
Actual flow is 64,800 gallons per day.

This permit authorizes only non-contact cooling water discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law

March 23, 2007
Effective Date

Doyle Childers, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

March 22, 2012
Expiration Date
AND 780-0041 (10-93)

Karl Egan, Director, Kansas City Regional Office

FACILITY DESCRIPTION (continued).

Receiving Stream Watershed: A gaining stream setting.

Facility Type: No-discharge storage and irrigation system for seasonal flows into a gaining stream.

Application rate is based on irrigation of potable water.

Storage capacity is a 100,000 gallons per day above ground steel tank.

Irrigation design flow is 9,000,000 gallons per year including 1-in-10 year storm water flows.

Application rates are: 0.02 inch/hour; 0.2 inch/day; 1.4 inches/week; 26.6 inches/year.

Irrigation site(s) are at total of 16.5 acres.

Irrigation site(s) have field slopes of 5 to 9 percent slope.

Vegetation grown on the irrigation site is row crops or grass.

Irrigation equipment type is a sprinkler system.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

PERMIT NUMBER MO-0131857

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001 - Emergency discharge from storage (Note 1)						
Flow	MGD	*		*	once/week**	24 hr. estimate
Total Suspended Solids	mg/L		110	70	once/week**	grab
Oil and Grease	mg/L	15		10	once/week**	grab
Total Residual Chlorine (Note 4)	mg/L	0.019		0.019	once/week**	grab
pH - Unit	SU	***		***	once/week**	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE July 28, 2007.

Outfall #001 - Land Application Operational Monitoring (Notes 2 & 3)

Irrigation Period	hours	*			daily	total
Volume Irrigated	gallons	*			daily	total
Application Area	acres	*			daily	total
Application Rate	inches/ acre	*			daily	total
Rainfall	inches	*			daily	total

MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE January 28, 2008.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I & III STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- * Monitoring requirement only.
- ** Monitor only when discharge occurs. Report as no-discharge when a discharge does not occur during the report period.
- *** pH is measured in pH units and is not to be averaged. The pH is to be maintained at average 6.0 - 9.0 pH units.

Note 1 - No-discharge facility requirements. Non-contact cooling water shall be stored and land applied during suitable conditions so that there is no-discharge from the storage facility or irrigation site. An emergency discharge may occur when excess non-contact cooling water has accumulated above feasible irrigation rates due to precipitation exceeding the 1-in-10-year 365 day rainfall or the 25-year 24-hour storm event.

7. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- Note 2 - Records shall be maintained and summarized into an annual operating report, which shall be submitted by January 28th of each year for the previous calendar year period. The report shall include the following:
1. Record of maintenance and repairs performed during the year, average number of times per month the facility is checked to see if it is operating properly, and description of any unusual operating conditions encountered during the year;
 2. The number of days the storage facility has discharged during the year, the discharge flow, the reasons discharge occurred and effluent analysis performed; and
 3. A summary of the irrigation operations including freeboard at the start and end of the irrigation season, the number of days of irrigation for each month, the total gallons irrigated, the total acres used, crops grown, crop yields per acre, the application rate in inches/acre per day and for the year, the monthly and annual precipitation received at the facility and summary of testing results.

Note 3 - Storage facility freeboard shall be reported as storage facility water level in feet below the overflow level. See Special Conditions for Non-contact cooling water Irrigation System requirements.

Note 4 - This permit contains a Total Residual Chlorine (TRC) limit.

USE IF TOTAL RESIDUAL CHLORINE IS ≤ 0.13 mg/L

1. This effluent limit is below the minimum quantification level (ML) of the most common and practical EPA approved CLTRC methods. The department has determined the current acceptable ML for total residual chlorine to be 0.13 mg/L when using the DPD Colorimetric Method #4500 - CL G. from Standard Methods for the Examination of Waters and Non-contact cooling water. The permittee will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. Measured values greater than or equal to the minimum quantification level of 0.13 mg/L will be considered violations of the permit and values less than the minimum quantification level of 0.13 mg/L will be considered to be in compliance with the permit limitation. The minimum quantification level does not authorize the discharge of chlorine in excess of the effluent limits stated in the permit.
2. Disinfection is required year-round unless the permit specifically states that "Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31." If your permit does not require disinfection during the non-recreational months, do not chlorinate in those months.
3. Do not chemically dechlorinate if it is not needed to meet the limits in your permit.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.
3. Permittee will cease discharge by connection to areawide non-contact cooling water treatment system within 90 days of notice of its availability.
4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
- (c) That the effluent limit established in part A of the permit will be exceeded.

5. Report as no-discharge when a discharge does not occur during the report period.

6. Water Quality Standards.

- (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
- (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;

7. SPECIAL CONDITIONS (continued);

13. Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
14. Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
15. There shall be no significant human health hazard from incidental contact with the water;
16. There shall be no acute toxicity to livestock or wildlife watering;
17. Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
18. Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 263.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 263.200-263.247.

7. Storage facilities and earthen basins shall have a liner that is designed, constructed and maintained in accordance with 10 CSR 20-8.020(13)(A)4. If operating records indicate, excessive percolation, the department may require a water balance test in accordance with 10 CSR 20-8.020(16) or other investigations to evaluate adequacy of the seal. The department may require corrective action as necessary to eliminate excess leakage.

8. Annual Report. (Outfall #001)

An annual report is required in addition to the quarterly reporting under Section A of this permit. The annual report shall be submitted by January 23 of each year for the previous growing season from October 1 through September 30 or an alternate 12 month period approved by the Department and listed in the Operation and Maintenance Manual. This report shall be submitted using report forms approved by the Department and shall include a summary of the monitoring and record keeping required by the Special Conditions and Standard Conditions of this permit.

9. Non-contact cooling water Irrigation System.

- (a) Discharge Reporting from June 1 to August 30. Any unauthorized discharge from the storage facility or irrigation system shall be reported to the department as soon as possible but always within 24 hours. Discharge is allowed only as described in the Facility Description and Effluent Limitations sections of this permit.
- (b) Irrigation Design. Design and operation shall be in accordance with 10 CSR 20- 9.020(15). Permittee shall operate the land application system in accordance with the design parameters listed in the Facility Description section of this permit:
- (b) No-Discharge System. When the Facility Description is a no-discharge, non-contact cooling water must be stored and irrigated at appropriate times. There shall be no-discharge from the irrigation site or storage facility except due to precipitation exceeding either the 1-in-10 year rainfall event for the design storage period or the 25-year-24-hour rainfall event.
- (c) Storage facility Operating Levels - No-Discharge Systems. The minimum and maximum operating water levels for the storage facility shall be clearly marked. Each storage facility shall be operated so that the maximum water elevation does not exceed one foot below the overflow point except due to exceedances of the 1-in-10 year or 25-year-24 hour storm events. Non-contact cooling water shall be land applied whenever feasible based on soil and weather conditions and permit requirements. Storage facility(s) shall be lowered to the minimum operating level prior to each winter by November 30.

D. SPECIAL CONDITIONS (continued)

- d. General Irrigation Requirements. The non-contact cooling water irrigation system shall be operated so as to provide uniform distribution of irrigated non-contact cooling water over the entire irrigation site. A complete ground cover of vegetation shall be maintained on the irrigation site unless the system is approved for row crop irrigation. Non-contact cooling water shall be land applied only during daylight hours. The non-contact cooling water irrigation system shall be capable of irrigating the annual design flow during an application period of less than 100 days or 800 hours per year.
 - e. Saturated/Frozen Conditions. There shall be no irrigation during frozen, snow covered, or saturated soil conditions. There shall be no irrigation on days when more than 0.2 inch of precipitation is received or when there is observation by operator of an imminent or impending rainfall event.
 - f. Buffer Zones. There shall be no irrigation within 300 feet of any down gradient pond, lake, sinkhole, losing stream or water supply withdrawal; 100 feet of gaining streams or tributaries; 150 feet of dwelling; or 50 feet of the property line.
 - g. Public Access Restrictions. Public access shall not be allowed to the irrigation site(s). Fencing and public access restrictions to land application sites shall be in accordance with requirements in 10 CSR 20-9.025(15)(b)(6).
 - h. Equipment Checks during Irrigation. The irrigation system and application site shall be visually inspected at least once per day during non-contact cooling water irrigation to check for equipment malfunctions and runoff from the irrigation site.
 - i. Operation and Maintenance Manual. The permittee shall develop, maintain and implement an Operation and Maintenance (O&M) Manual that includes all necessary items to ensure the operation and integrity of the waste handling and land application systems. Copies of the O&M Manual and subsequent revisions shall be submitted to the departments' Water Pollution Control Program and Regional Office for review and approval. The O&M Manual shall be reviewed and updated at least every five years.
10. Sludge and Biosolids
- (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
 - (b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.



VISION OF ENVIRONMENTAL QUALITY
NPDES MONITORING REPORT FOR NON-MUNICIPAL WASTEWATER DISCHARGES

INSTRUCTIONS:

1. Mail to: Kansas City Regional Office, 500 NE Colham Road, Lee's Summit, MO 64086-4710
2. Report must be signed by owner and by analyst. Report should be typed or neatly printed.
3. Part A of the permit specifies the parameters to be monitored, frequency of monitoring and frequency of reporting results. If quarterly reports are required, they are due on April 28, July 28, October 28, and January 28, each report covering the preceding 3-month period not including the reporting month. See the permit for reporting dates if other than quarterly.
4. Report results of all analyses, even if performed more frequently than required by Part A of the permit.
5. File a report even if discharge is intermittent and no discharge occurred during the monitoring period. Complete the identification section, write "NO" in the appropriate columns for the dates the facility was checked, and sign the report. NOTE: If a discharge occurs any time during the monitoring period, it must be reported.
6. Under "Sample Type" indicate whether sample analyzed was: (a) grab sample; (b) 24-hour composite sample; or (c) modified composite sample. NOTE: See permit for type of sample required for each parameter.
7. Under "Sample Type" for Flow indicate whether figures shown are based on (a) instantaneous measurements or (b) actual 24-hour measured flow. Figure recorded is to represent the total 24-hour flow for the date shown or a reasonable estimate.
8. Indicate whether samples were collected by owner or by personnel of the lab performing the analyses.

NOTE: This reporting form is a universal reporting form for non-municipal sewage treatment plants, industries, and other point-source discharges.

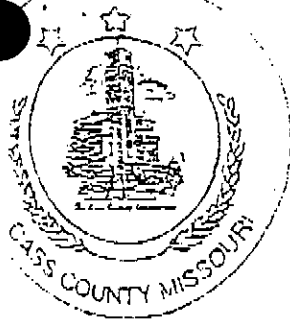
Industries and individuals who have their own report forms designed for their specific needs are encouraged to substitute their forms. A suitable substitute must meet the following specifications.

(a) Form must be 8 1/2" x 11".

(b) Report must show all of the information indicated on this standard form.

FACILITY NAME		PERMIT NUMBER		COUNTY		OWNER		TYPE OF FACILITY			
REQUIRED FREQUENCY OF MONITORING				THIS REPORT COVERS PERIOD							
				19__ THROUGH 19__							
DATES SAMPLED								<div style="text-align: center;">(RECORD, AS APPROPRIATE, SUCH INFORMATION AS METHOD OF PRESERVATION, METHODS OF SAMPLE COLLECTION, ABNORMAL AGE OF SAMPLE, EXPLANATION OF UNUSUAL RESULTS, ETC.)</div>			
TIME OF DAY SAMPLED											
SAMPLES COLLECTED BY											
DATES OF ANALYSES											
PARAMETERS		PERMITTED FINAL LIMITS		RECORD ACTUAL RESULTS OF ANALYSIS -- DO NOT AVERAGE				<div style="text-align: center;">ANALYTICAL METHOD (BE SPECIFIC)</div>		REMARKS AND COMMENTS	
FLOW		GPD									
BOD		mg/l									
SUS. SOLIDS		mg/l									
pH		UNITS									
FECAL COLI.		/100 ml.									
ANALYSES PERFORMED BY						SIGNATURE OF ANALYST					
REPORT APPROVED BY OWNER						DATE					

Sanitary Water/Sewage Lagoon Permit



**CASS COUNTY HEALTH DEPARTMENT
ON-SITE SEWAGE DISPOSAL SYSTEM
CONSTRUCTION PERMIT APPLICATION**
300 S. Main, Harrisonville, Mo 64701
316 330-3426

CCHD use only	
APPROVED <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date <u>2/24/05</u>
Permit Number <u>05-018</u>	
Date Issued <u>2/24/05</u>	Date permit fee \$200 paid <u>2/24/05</u>
Expiration Date <u>8/24/05</u>	
EPHS Signature <u>Wayne H. Hays</u>	Date <u>2/24/05</u>

Property Owner Name <u>Aquila Inc. c/o Mr. Terry Hedrick</u>		Subdivision <u></u>	
Site Address (911/ENS) <u>24400 South Harper Road</u>		Lot# <u></u>	
City <u>Cass County, MO</u>	Zip Code <u>64078-9086</u>		

Directions to Site

From Highway US-71, take MO-1/MO-C to 227th Street. Turn West on 227th Street to South Harper. Turn South on South Harper Road.

Mailing Address (if different from above) <u>Attn: Terry Hedrick</u> <u>10700 E. 350 Highway</u>	Day phone number <u>(816) 737-7854</u>	Night phone number <u>()</u>
--	---	----------------------------------

City <u>Kansas City</u>	State <u>MO</u>	Zip Code <u>64138</u>
4. System Is	New Construction <input checked="" type="checkbox"/>	Repair Existing System <input type="checkbox"/> Tank Set Only <input type="checkbox"/>
5. System Serves	Residence <input type="checkbox"/>	Business <input checked="" type="checkbox"/>
Single Family <input type="checkbox"/>	No. Bedrooms <u></u>	Whirlpool Bath <input type="checkbox"/>
Multi-Family <input type="checkbox"/>	Laundry Facility <input type="checkbox"/>	Food Service <input type="checkbox"/>
	Dishwasher <input type="checkbox"/>	Lodging <input type="checkbox"/>
	Public <input checked="" type="checkbox"/>	Other (specify) <u></u>
6. Water Supply	Private <input type="checkbox"/>	Daily Sewage Flow (gallons per day) <u></u>
Name of Supply <u>PWSD #7</u>	Type of Supply	Bored well <input type="checkbox"/>
		Dug well <input type="checkbox"/>
		Drilled well <input type="checkbox"/>
		Other (specify) <u></u>

7. Lot	Size Acres <u>78</u>	Slope <u>3%</u>	Indicate direction of slope on Site Plan <u>North to South</u>
--------	----------------------	-----------------	---

8. Soil Information	Include percolation test or soil scientist report with the application
---------------------	--

Percolation Test	Percolation Rate (min/inch) <u>Not Suitable</u>
Soil Morphology <input checked="" type="checkbox"/>	Soil Type <u></u>
Soil Texture	% Clay <u></u>
Application Rate	

9. Name of Percolation Tester or Soil Scientist <u>Doug Berka</u>	
Address <u>7354 N. Shannon Ave</u>	Phone Number <u>(816) 914-8849</u>
City <u>Van Buren P.O.</u>	Zip Code <u>64085</u>

10. Proposed System

Complete information only for the system you plan to construct

A. Available Systems

Percolation Rate

10-60 min.in.

60-120 min.in

120 min.in or above

Rock and Pipe System

Engineered conventional systems

Waste Stabilization Pond

Graveless Chamber System

based on 600 square feet per bedroom

Drip Irrigation System

Low Pressure Pipe System

per day

Graveless Pipe System

Low Pressure Pipe System

Drip Irrigation System

Drip Irrigation System

B1 <input checked="" type="checkbox"/> Septic Tank Holding Tank		Absorption Field	
Manufacturer	Type Construction	Serial Dist (Land Block) <input type="checkbox"/>	Flat Lot Layout <input type="checkbox"/>
Liquid Capacity 600 gal <u>600</u>	Material Concrete	Total Absorption Area	No. of Trenches
Septic <input type="checkbox"/>		Trench Width	Trench Depth
Asphalt <input type="checkbox"/>	NSF Class I Y <input type="checkbox"/> N <input type="checkbox"/>	Distances from Well	House
Distance from: Well N.A.	House Service Building N.A. 300 feet	Property lines	Water lines
		Stream, river, pond or lake	Neighbor's well

Show location of house, tank, absorption field, wells, water lines, bodies of water, geological features, easements, and all setback distances on the Site Plan.

C. <input type="checkbox"/> Waste Stabilization Pond		Pond Seal	
Lagoons will not be allowed in front yards.			
Dimensions		Native soil <input checked="" type="checkbox"/>	Artificial Liner <input type="checkbox"/>
Length x width or diameter	40' x 40'	Bentonite Clay <input type="checkbox"/>	Clay from another source <input type="checkbox"/>
Total Water Surface Area		Type of equipment used to compact soil:	
Square feet			
Working Depth	4'		

Indicate location of discharge pipe, fence, gate and all setback distances on Site Plan.

1. Installer	Registered Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
Name	Lloyd Buckner
Address	1314 Maple Lane
City	P. Hill
State	MO
Zip Code	64080

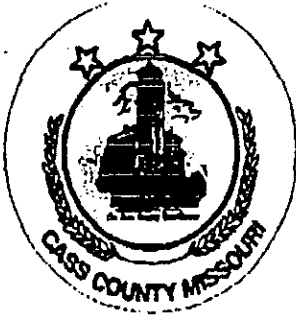
All information contained in and with this application packet is true and accurate to the best of my knowledge.

2. Signature of Owner or Agent	Date
<i>[Signature]</i>	2/24/2005

CCHD USE ONLY

Inspection Approval		Pump Tank Inspection		Lagoon Fence Inspection	
EPHS Initial	Date	EPHS Initial	Date	EPHS Initial	Date
7/30/05	DW7			9/30/05	DW7

Occupancy Permit



Cass County Health Department

300 So. Main, Harrisonville, Mo. 64701
816-380-8425—Fax 816-380-8450

Wm. Patrick Thomas
Administrator

Administration/Records
Donna Karg

Nursing
Mary Gutierrez, RN
Michele Lukenbill, RN
Andi McIntyre, RN
Melanie Kintner
Marie Cramer

Environmental
Wayne Tiffany, EPHS III
Tiffany Klassen, EPHS II
Steve Dumell, EPHS III

WIC
Carla Harper, HPA Clerk
Jean Talbert, Clerk II
Cheryl Steele, HPA Clerk
Jenny Gladden RD WIC
Coordinator

CERT
Bob Strang, Jr.
Emergency Planner
Kimberly Henson,
Epidemiology Specialist

August 1, 2005

To: Aquila South Harper Plant

Subject: Ninety-Day Temporary Occupancy Permit

This letter is in reference to the Aquila Electric Plant in Peculiar. A 90(ninety)-day permit will be issued by this Department for occupancy of the power plant. Once the work trailers are removed and final grade can be done around the lagoon a reinspection may be called for and the final inspection can occur. The temporary permit shall be granted for a period beginning 8/1/05 and ending 11/1/05. If there are any questions please contact the office at 816-380-8425.

Aquila Representative

Fred H. Woerner/Sega Inc

Health Department Official

Wayne Tiffany CCHD

US Army Corps of Engineers Correspondence



DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
700 FEDERAL BUILDING
KANSAS CITY, MISSOURI 64106-2896

REPLY TO
ATTENTION OF:

October 19, 2004

Regulatory Branch
(200402288)
(Cass County, NPR)

Brad Guhr, Wetland Scientist
Burns & McDonnell
9400 Ward Parkway
Kansas City, Missouri 64114-3319

Dear Mr. Guhr:

This is in response to your letter received on September 15, 2004, requesting a Department of the Army (DA) permit determination concerning the proposed South Harper Peaking Facility to be constructed by Aquila, Incorporated. The project is located in Sections 29 and 32, Township 45 north, Range 32 west, Cass County.

The Corps of Engineers has jurisdiction over all waters of the United States. Discharges of dredged or fill material in waters of the United States, including wetlands, require prior authorization from the Corps under Section 404 of the Clean Water Act (33 USC 1344). The implementing regulation for this Act is found at 33 CFR 320-330.

The enclosed Jurisdictional Determination (JD) form describes the extent of waters of the United States on the project site. Also, the enclosed Notification of Administrative Appeal Options and Process and Request for Appeal form (FORM) describes your options in Section E of the FORM. If you choose to appeal, and you have new information concerning the elevation of the OHWM, you should complete Section # II of the FORM and return the FORM to this office. If you choose to appeal, but have no new information, please submit the completed FORM directly to **U.S. Army Corps of Engineers, Commander, Northwestern Division (ATTN: CENWD-CM-OR), 12565 West Center Road, Omaha, NE 68144-3869.**

We have reviewed the information furnished and have determined that the proposed activity will not involve the discharge of dredged or fill material in waters of the United States. Therefore, Department of the Army permit authorization is not required. Other Federal, state and/or local permits may be required, however, and you should verify this yourself.

Mr. Douglas R. Berka, Regulatory Project Manager, reviewed the information furnished and made this determination. If you have any questions concerning this matter, please feel free to contact Mr. Berka at 816-983-3657 (FAX 816-426-2321).

Enclosure

Copies Furnished:

Environmental Protection Agency

US Fish & Wildlife Correspondence



10-28-04 2:49 P.M.

OPTIONAL FORM 99 (7-99)

FAX TRANSMITTAL

To: Bred Guhr From: Ellie

Dept./Agency: Wetland Scientist Phone #: 573-234-2132 x100

Fax #: 816-333-3640 Fax #: 573-234-2181

NSN 7540-01-317-7368 822-3565

GENERAL SERVICES ADMINISTRATION

of pages: 3

September 2, 2004

Mr. Charlie Scott
Field Supervisor
U.S. Fish and Wildlife Service
Missouri Ecological Services Office
101 Park DeVile Drive, Suite A
Columbia, MO 65203-0007

FILE

REC'D SEP 15 2004

South Harper Peaking Facility
Request for Agency Concurrence
Project No.: 37273

Dear Mr. Scott:

Burns & McDonnell Engineering, Inc. (Burns & McDonnell) has been retained by Aquila Inc. (Aquila) to obtain the necessary environmental permits and/or clearances for the proposed South Harper Peaking Facility approximately two miles southwest of Peculiar in Cass County, Missouri (Figure 1; Appendix A). Aquila proposes to construct, own, and operate a new, nominal 315 MW peaking power generation facility. The South Harper Peaking Facility (Project) will consist of three simple-cycle, natural gas combustion turbine generators to meet the increasing power consumption requirements in the northwest Missouri Region. As a peaking power facility, the Project is expected to operate no more than 6,000 hours per year, primarily on warm summer days when the demand for electrical power is the highest.

The Project will be constructed on a parcel of land approximately 73 acres in size; however, the actual land disturbance is anticipated to be only about 38 acres, including the Project footprint and temporary construction areas. The 73-acre site is located in the southeast quarter (SE $\frac{1}{4}$) of the southeast quarter (SE $\frac{1}{4}$) of Section 29, and the northeast quarter (NE $\frac{1}{4}$) of the northeast quarter (NE $\frac{1}{4}$) of Section 32, Township 45 North, Range 32 West. An existing 69-kV electrical transmission line owned by Aquila intersects the Project site and will allow for interconnection to the electric grid. An existing 20-inch natural gas pipeline, owned by Southern Star Pipeline Company, also intersects the Project site and will be used for the fuel supply. Construction of the Project is expected to begin in the fall of 2004 and will be completed by summer 2005.

The proposed Project site was visited on August 19th and 20th, 2004 to assess the projects potential to impact threatened and endangered species. Prior to the site visit, available information for Cass County was obtained from the U.S. Fish and Wildlife Service (FWS) and Missouri Department of Conservation (MDC) Internet web sites.



Mr. Charlie Scott
September 2, 2004
Page 2

Other sources of site information included the 1994 USGS topographic map for the Peculiar Quadrangle, 1954 (Photo-Revised 1981), the U.S. Department of Agriculture Soil Survey for Cass County, Missouri, and aerial photographs of the project site and surrounding area. According to the FWS and MDC, two protected species are known or are likely to occur in Cass County.

Protected Species Known or Likely to Occur in Cass County			
Common Name	Scientific Name	State Status	Federal Status
Mead's Milkweed	<i>Asclepias meadii</i>	Endangered	Threatened
Barn Owl	<i>Tyto alba</i>	Endangered	-
Based on information provided by the FWS http://midwest.fws.gov/Endangered/lists/missouri-cty.html and MDC Natural Heritage Database http://www.conservation.state.mo.us/cgi-bin/nchritage/search.cgi?county=CASS			

Mead's milkweed prefers mesic to dry prairies, prairie hay meadows, and virgin mesic silt loam prairies. Barn owls forage in open grasslands or crop fields and nest in abandoned buildings, farm outbuildings, or cavity trees greater than 20 inches in diameter at breast height (dbh).

The proposed Project site consists mostly of open pasture (Figure 2) (Photograph 1; Appendix B). Vegetation at the Project site consists of non-native pasture grasses, primarily smooth brome (*Bromus inermis*) and tall fescue (*Festuca elatior*), and associated invasive, disturbance-tolerant forbs such as common milkweed (*Asclepias syriaca*), horse nettle (*Solanum carolinense*), field bindweed (*Convolvulus arvensis*), fire-on-the-mountain (*Euphorbia cyathophora*), foxtail (*Setaria* sp.), white clover (*Trifolium repens*), red clover (*Trifolium pratense*), ironweed (*Vernonia baldwinii*), and daisy fleabane (*Erigeron strigosus*). Woody vegetation in the area is restricted to a few small clumps of trees and shrubs in drainages and depressions (Photograph 2). These areas include saplings and small trees of black willow (*Salix nigra*), green ash (*Fraxinus pennsylvanica*), eastern cottonwood (*Populus deltoides*), osage orange (*Maclura pomifera*), honeylocust (*Gleditsia triacanthos*), and a shrub layer that consisted of roughleaf dogwood (*Cornus drummondii*) and buckbrush (*Symphoricarpos orbiculatus*).

Potential habitats for Mead's milkweed and barn owls were not observed at the proposed site. Tallgrass prairies and cavity trees greater than 20 dbh were not present. The site was dominated by grass pastures that appear to be regularly grazed (see site photos). Recent evidence of the presence of cattle was observed over the entire site. Raptor stick nests were not observed in any of the trees in the vicinity of the proposed project area. A number of livestock ponds were present along drainages in the project area (Photograph 3), but the large pond in the southern portion of the site (Figure 2) has been removed (Photograph 4).



Mr. Charlie Scott
September 2, 2004
Page 3

Based on the site survey, Burns & McDonnell has concluded that construction and operation of the Project will not result in any significant impacts to threatened and endangered species or their critical habitats. Construction of the proposed facility will occur within previously disturbed agricultural lands, not impact any wetlands, and will not require any tree clearing.

We are seeking to gain your concurrence with our findings regarding construction of the proposed Project. Your assistance in identifying resource issues/concerns is appreciated and an expeditious response to this inquiry would be greatly appreciated. If you have any questions regarding this project, please contact me at (316) 283-4114 or by e-mail at bguhr@burnsmcd.com.

Sincerely,

Brad Guhr
Wetland Scientist

Encl.

cc: Block Andrews, Aquila;
John Stower, Burns & McDonnell
Files

"The U.S. Fish and Wildlife Service has reviewed the subject proposal and accompanying information and determined that the activity as described, is not likely to adversely affect federally listed species or designated critical habitat; consequently, this concludes section 7 consultation. Please contact the Missouri Department of Conservation (573/751-4115) for state listed species of concern."

for the Rick L. Hansen
Field Supervisor

4 Oct 2004
Date

Missouri Department of Conservation Correspondence



MISSOURI DEPARTMENT OF CONSERVATION

Headquarters

2901 West Truman Boulevard, P.O. Box 180, Jefferson City, Missouri 65102-0180

Telephone: 573/751-4115 ▲ Missouri Relay Center: 1-800-735-2966 (TDD)

JOHN D. HOSKINS, Director

September 23, 2004

Mr. Brad Guhr
9400 Ward Parkway
Kansas City, Missouri 64114-3319

Dear Mr. Guhr:

Thank you for your letter of September 2, 2004, regarding possible effects of your project on species of conservation concern. I hope the enclosed Heritage Review Report meets your needs. It provides a "snapshot" of what we know today about sensitive resources near your project site, ways a project like yours might affect them and any "best management" recommendations.

This report should also meet needs for compliance with various permitting processes designed to protect the environment. MDC is not authorized under federal law to give "clearance" or set requirements for project completion. Our role, developed over years of working with the agencies that have regulatory responsibility, is primarily to identify issues of concern and ways to minimize adverse impacts. Permitting agencies normally consider and sometimes rely on our suggestions as they set project conditions and requirements.

Incorporating information from our Heritage records into project plans can help reduce unnecessary impacts to Missouri's sensitive natural resources. However, our records are just one source. Other types of information, such as wetland maps, soils maps, surveys and on-site inspections should be considered. Ultimately, the project manager must compare reports like this to actual current conditions and act responsibly to comply with laws, regulations and permit conditions.

The format of this report is somewhat different than we have used in the past, and I hope it is an improvement. If you have any comments or concerns about the changes, or any other element of our approach to heritage review, please give me a call or e-mail me at Shannon.Cave@mdc.mo.gov.

Thank you for the opportunity to review and comment.

Sincerely,

SHANNON CAVE
PUBLIC INVOLVEMENT COORDINATOR

SDC:kf

Enclosure

COMMISSION

STEPHEN C. BRADFORD
Cape Girardeau

ANITA B. GORMAN
Kansas City

CYNTHIA METCALFE
St. Louis

LOWELL MOHLER
Jefferson City



Heritage Review Report

Missouri Department of Conservation
Attn: Shannon Cave
Public Involvement Coordinator
P. O. Box 180
Jefferson City, MO 65102
Shannon.Cave@mdc.mo.gov
573-522-4115 Ext. 3250

Mr. Brad Guhr
Burns & McDonnell
9400 Ward Parkway
Kansas City, Missouri 64114-3319

Project type: Power plant
Location: T45N R32W S29 & 32
County: Cass
Described in query as: South Harper Peaking Facility
Date query received: September 23, 2004

This is not a site clearance letter, but a report of Missouri Department of Conservation records concerning public lands and sensitive resources known to be near and possibly affected by the proposed project.

Species/habitats with Federal restrictions: **No Records Found**

Species/habitats with State restrictions: **No Records Found**

Concerns & management recommendations¹ based on site or project details, not related to specific heritage records:

Habitat loss can impact populations of grassland birds native to the area, including barn owls (state endangered), northern harriers (state endangered), Henslow's sparrow (imperiled in the state), and greater prairie-chickens (state endangered). Revegetation with native grasses and other flowering plants will minimize the impact of habitat disturbance. Best management practices may be found on-line at <http://www.mdc.mo.gov/nathis/endangered/bmp.htm>.

The project area occurs in a region of karst geology, characterized by subterranean water movement. Features like caves, springs, and sinkholes are common. Cave fauna are influenced by water pollution and other changes to water quality. Every effort should be made to protect groundwater in the project area. See <http://www.mdc.mo.gov/documents/nathis/endangered/karst.pdf> for best management information.

Some raptors, including far-ranging species that are endangered or threatened, are prone to electrocution because of their size, behavior, and perching habits, especially on power poles. By increasing the gap between ground wires and energized conductors to 4 feet, the risk of electrocution can be reduced. Wires and other metal equipment can also be insulated. Locating wooden perches well above energized wires, and installing guards for perches in dangerous areas, may also help avoid problems.

Prepared by

Date 9/23/2004

MISSOURI

¹ Contact us for printed versions of best management practices, please.

A HERITAGE REVIEW requires a project description² and specific site location³. Based on that information, the review provides information about species and habitats of concern that could⁴ be affected by the project. Three different kinds of information are provided.

- **"Species/Habitats With FEDERAL RESTRICTIONS"** lists species that have been known to exist near enough to the project site to warrant concern and protected under the Federal Endangered Species Act. For these, project managers must contact the U.S. Fish and Wildlife Service Ecological Services (101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132; Fax 573-234-2181) for consultation.
- **"Species/habitats with STATE RESTRICTIONS"** lists species known to exist near enough to the project site to warrant concern and protected under the Wildlife Code of Missouri (RSMo 3 CSR 10). "State Endangered Status" is determined by the Missouri Conservation Commission under constitutional authority, with requirements expressed in the Missouri Wildlife Code, rule 3CSR10-4.111. "State Rank" is numeric rank of relative rarity, protected under general provisions of the Wildlife Code.
- **"Concerns & management recommendations"** are things one might prudently look for at the identified site, but of which we have no specific record. With 93% of Missouri land in private ownership, most sites in Missouri have never been carefully inspected by conservation professionals, but our knowledge of the surrounding landscape suggests that the project consider these items.

With all of the above, we attempt to provide information to help the requestor determine if the species is actually on site, and available best management recommendations.

This report is not a site clearance letter. Rather, this letter provides an indication of whether or not public lands and sensitive resources are known to be (or are likely to be) located close to the proposed project.

Incorporating information from our Heritage Database into project plans is an important step that can help reduce unnecessary impacts to Missouri's sensitive natural resources. However, the Heritage Database is only one reference that should be used to evaluate potential adverse impacts. Other types of information, such as wetland and soils maps and on-site inspections or surveys, should be considered. Reviewing current landscape and habitat information and species biological characteristics would additionally ensure that species of conservation concern are appropriately identified and addressed.

Additional information on rare, endangered and watched species may be found at <http://www.mdc.mo.gov/nathis/endangered/>

² Please provide basic information but not great detail. Multi-page renderings are usually not needed, but a brief text description may mean fewer concerns will be raised. For example, if the project is to erect a cellular tower, nearby endangered mussels might not be noted even though they would be for a sewage lagoon.

³ Preferred are (a) township/range/section description (UTM and lat/long take more time here, but will work) and (b) a topographic map with site marked (point or boundary as appropriate). In most cases an 8-1/2X11 photocopy of part of a USGS map is fine (note the quadrangle name); or a page print of an online map (e.g. www.topozone.com) with point marked. Extensive ongoing projects (e.g. oil pipelines) should if possible provide ARCGIS® shape files compatible with UTM15.

⁴ Heritage records note things that were positively identified at some date and time, marked at a location that may be more or less precise. Animals move quickly but plant communities can move also. To say "there is a record" does not mean the species/habitat is still there. To say that "there is no record" does not mean the project may not encounter something. Because of this, reports include information about records near but not necessarily on the project site.

State Historic Preservation Office Correspondence



Bob Holden, Governor • Stephen M. Mahfood, Director

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

September 7, 2004

John Stower
Burns & McDonnell
9400 Ward Parkway
Kansas City, Missouri 64114

Re: Aquila Peculiar Energy Center (EPA) Cass County, Missouri

Dear Mr. Stower:

Thank you for submitting information on the above referenced project for our review pursuant to Section 106 of the National Historic Preservation Act (P.L. 89-665, as amended) and the Advisory Council on Historic Preservation's regulation 36 CFR Part 800, which requires identification and evaluation of cultural resources.

We have reviewed the Section 106 Survey Memo entitled *Aquila Peculiar Energy center, Project 37273, Cass County, Missouri* by John T. Penman. Based on this review it is evident that a thorough and adequate cultural resources survey has been conducted of the project area. We concur with the investigator's recommendation that there will be **no historic properties affected** and, therefore, we have no objection to the initiation of project activities. However, a second copy of the Survey Memo should be submitted to this office.

Please be advised that, should project plans change, information documenting the revisions should be submitted to this office for further review. In the event that cultural materials are encountered during project activities, all construction should be halted, and this office notified as soon as possible in order to determine the appropriate course of action.

If you have any questions, please write Judith Deel at State Historic Preservation Office, P.O. Box 176, Jefferson City, Missouri 65102 or call 573/751-7862. Please be sure to include the SHPO Log Number (027-CS-04) on all future correspondence or inquiries relating to this project.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE

Mark A. Miles
Director and Deputy State
Historic Preservation Officer

MAM:jd

c Joe Cothorn, EPA
John Penman, Burns & McDonnell

Integrity and excellence in all we do



Structure Height Notification Memo



ENVIRONMENTAL
STUDIES AND
PERMITTING

MEMORANDUM

Date: August 31, 2004

To: Terry Hedrick, Aquila, Inc.

From: Robert Everard, Burns & McDonnell

Regarding: South Harper Peaking Facility - FAA Notification Requirements

Project No.: 37273

A review of public airports within 10 nautical miles (nm) of the City of Peculiar, Missouri was conducted by using the Federal Aviation Administration (FAA) website: <http://www.aviationdirectory.com/locainnm.asp>. Ten (10) nm is equivalent to about 11.55 miles. The airport search included the following types of aircraft related facilities:

- Airports
- Heliports
- Gliderports
- Seaplane ports
- STOLports
- Ultralight Airparks
- Balloonports

According to the FAA, the only public airports within 10 nm of Peculiar are the Lawrence Smith Memorial Airport (LRY) and Hillside Airport (63K). Both airports are approximately nine (9) nm (10.35 miles) from the City of Peculiar. The Lawrence Smith Memorial Airport is located about three (3) nm (3.45 miles) south of Harrisonville, Missouri at an elevation of 915 feet (ft). It has an asphalt runway that is 4000 feet long by 75 ft wide. The Hillside Airport is approximately four (4) nm (4.6 miles) northeast of Still, Kansas at an elevation of 1,025 feet. It has a gravel/turf runway that is 2,000 long and 56 feet wide.

The South Harper Peaking Facility (Facility) is located in the northeast $\frac{1}{4}$, northeast $\frac{1}{4}$ Section 32, approximately 11.75 miles southeast of the Hillside Airport and 8.75 miles northwest of the Lawrence Smith Memorial Airport. Distance was determined from Delorme Street Atlas 8.0. It is our understanding that the tallest structures at the Facility will be the switchyard/substation lightning masts of 85 ft. and the gas turbine exhaust stacks at 70 ft. It is also our understanding that the Facility will be at an elevation of approximately 970 ft above mean sea level (AMSL).

Under Part 77.13, the FAA requires notifications (Form 7460-1) to be submitted for any construction or alteration of (1) more than 200 ft in height above ground level or (2) greater height than an imaginary surface extending outward and upward at the following slope;

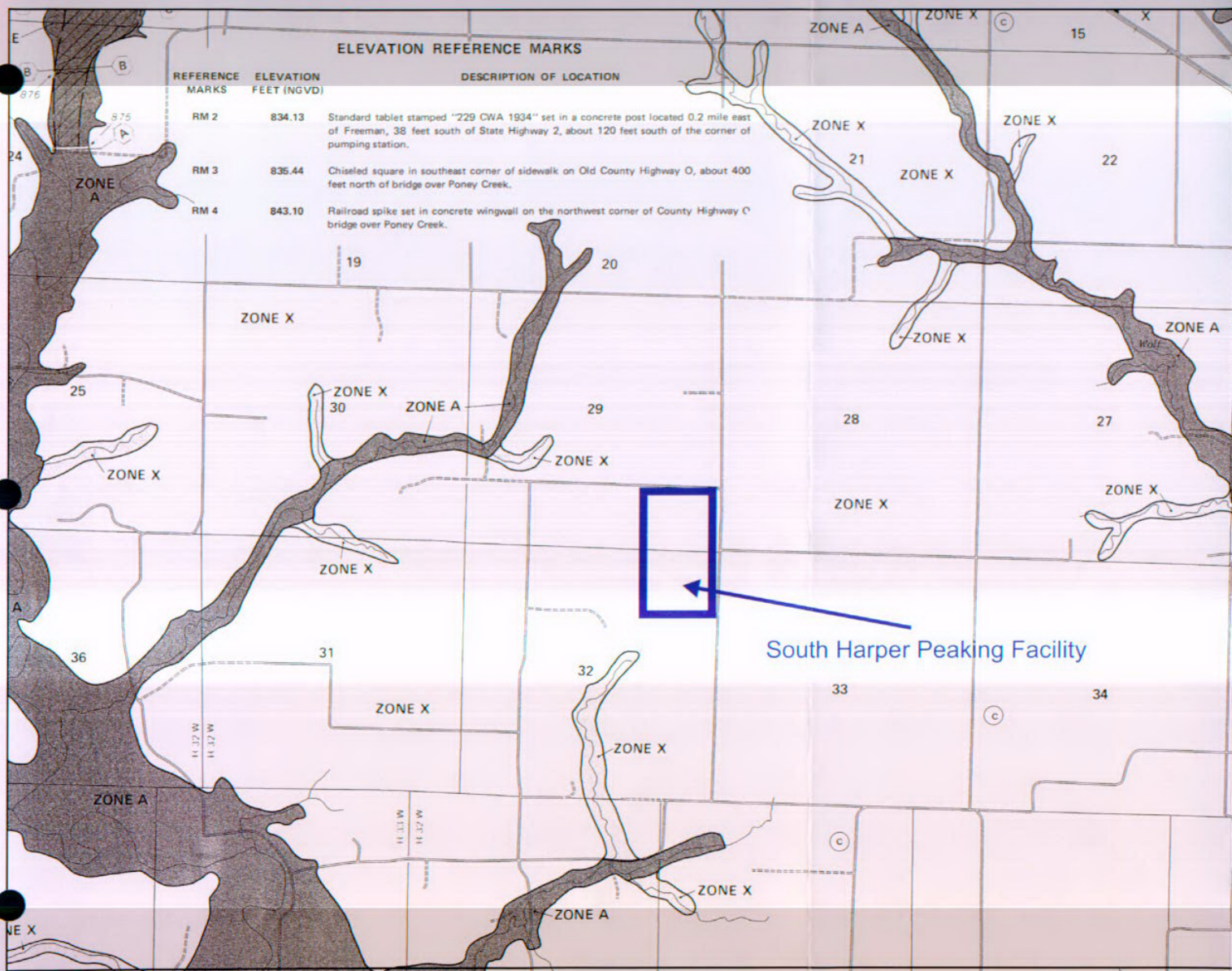
MEMORANDUM

- (i) 100 to 1 for a horizontal distance of 20,000 ft from the nearest point of the nearest runway of each qualifying airport with at least one runway more than 3,200 ft in length, excluding heliports.
- (ii) 50 to 1 for a horizontal distance of 10,000 ft from the nearest point of the nearest runway of each qualifying airport with at least one runway no more than 3,200 ft in length, excluding heliports.
- (iii) 25 to 1 for a horizontal distance of 5,000 ft from the nearest point of the nearest landing and takeoff area of each qualifying heliport.

Since the Facility is not anticipating any structures over 200 ft tall (1) and all structures at the Facility do not meet the requirements of item (2), parts (i), (ii), and (iii) when considering elevation, height, and distance, a FAA Notice of Proposed Construction or Alteration should not be required.

Cc: Max Sherman, Aquila
John Stower, Burns & McDonnell

FEMA Flood Insurance Rate Map (FIRM) No. 290783 0100C



the National Flood Insurance Program at (800) 638-662



APPROXIMATE SCALE IN FEET

2000 0

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CASS COUNTY,
MISSOURI
(UNINCORPORATED AREAS)

PANEL 100 OF 225

COMMUNITY-PANEL NUMBER:
290783 0100 C
MAP REVISED:
MAY 4, 1992



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using FIRM On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msk.fema.gov

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FIRM
FLOOD INSURANCE RATE MAP
CASS COUNTY,
MISSOURI
AND UNINCORPORATED AREAS
PANEL 131 OF 400
 (SEE PAGE 1004 FOR PANEL NUMBER LOCATOR)
 CONTAINS:
 COMMUNITY: _____ RATED: _____ FIRM: _____
 MAP NUMBER: _____ DATE: _____