



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: 072008-005 Project Number: 2008-03-075

Parent Company: Hannibal Regional Hospital

Parent Company Address: 6000 Hospital Drive, Hannibal, MO 63401

Installation Name: Hannibal Regional Hospital

Installation Address: 6000 Hospital Drive, Hannibal, MO 63401

Location Information: Marion County, S27 & S28, T57N, R5W

Application for Authority to Construct was made for: The installation of two (2) 4.62 MMbtu/hr dual fuel boilers, one (1) 6,000 gallon fuel oil storage tank, and a 400 kW emergency generator. This review was conducted in accordance with Section (5), 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 are applicable to this permit.

JUL 16 2008

EFFECTIVE DATE

James Kavenue
DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, air pollutant control devices shall be operated and maintained as specified in the permit application, associated plans and specifications.

You must notify the departments' Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), 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 AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

STATE OF MISSOURI



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

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DEPARTMENT OF NATURAL RESOURCES

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REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2008-03-075
Installation ID Number: 127-0057
Permit Number:

Hannibal Regional Hospital
6000 Hospital Drive,
Hannibal, MO 63401

Complete: 3/24/08

Parent Company:
Hannibal Regional Hospital
6000 Hospital Drive,
Hannibal, MO 63401

Marion County, S27 & S28, T57N, R5W

REVIEW SUMMARY

- Hannibal Regional Hospital has applied for authority to install two (2) 4.62 MMbtu/hr dual fuel boilers, one (1) 6,000 gallon fuel oil storage tank, and a 400 kW emergency generator.
- Hazardous air pollutant (HAP) emissions are expected due to the combustion of natural gas and No. 2 fuel oil.
- 40 CFR Part 60 Subpart "III" of the New Source Performance Standards (NSPS), *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, applies to the emergency generator because the generator engine was manufactured after the applicability date of April 1, 2006.
- 40 CFR Part 63 Subpart "ZZZZ" of the Maximum Achievable Control Technology (MACT), *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, applies to the emergency generator. None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) apply to the proposed equipment.
- No air pollution control equipment is being used in association with the new equipment.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all criteria pollutants are below de minimis levels.
- This installation is located in Marion County, an attainment area for all criteria air pollutants.

- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].
- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- Emissions testing is not required for the equipment.
- A revision to your Basic Operating Permit is required for this installation within 30 days of equipment startup.
- Approval of this permit is recommended without special conditions.

INSTALLATION DESCRIPTION

Hannibal Regional Hospital is an existing facility in Hannibal, Missouri. The existing facility is a de minimis source and holds a basic operating permit.

The following construction permits have been issued to Hannibal Regional Hospital from the Air Pollution Control Program.

Permit Number	Description
1294-023	Boilers, Emergency Generator, Incinerator

PROJECT DESCRIPTION

The 145,000 square foot hospital is undergoing an expansion to add on a 35,000 square foot emergency care unit. For the expansion, the facility is adding two (2) Precision, model MCH-24-110, 4.62 million btu per hour dual fuel boilers, a 6,000 gallon No. 2 fuel oil above ground storage tank, and a 400 kW emergency generator with a CAT, model C15 ATAAC, diesel engine. The boilers will burn primarily natural gas with No. 2 fuel oil (ultra low sulfur diesel) as the back up fuel.

EMISSIONS/CONTROLS EVALUATION

Existing potential emissions were taken from Permit No. 1294-023. The emission factors and control efficiencies used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 1.4 *Natural Gas Combustion* (7/98) and Section 3.3 *Gasoline And Diesel Industrial Engines* (10/96). Potential emissions of the two (2) boilers and the storage tank were calculated assuming continuous operation for 8760 hours per year. Potential emissions of the emergency generator were calculated assuming 500 hours per year. Sulfur oxide (SO_x) emissions from the boilers were based upon No. 2 fuel oil having a maximum sulfur content of 0.0015 percent by weight (15 parts per million). The following table provides an emissions summary for this project.

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2007 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM ₁₀	15.0	5.59	0.13	0.64	N/A
SO _x	40.0	6.09	0.01	0.06	N/A
NO _x	40.0	< 40	1.72	9.28	N/A
VOC	40.0	4.67	0.11	0.3	N/A
CO	100.0	15.05	1.4	4.17	N/A
HAPs	10.0/25.0	0.00020	0	0.07	N/A

N/A = Not Applicable

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are below de minimis levels.

APPLICABLE REQUIREMENTS

Hannibal Regional Hospital shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

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

The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required June 1 for the previous year's emissions.

- *Operating Permits*, 10 CSR 10-6.065

SPECIFIC REQUIREMENTS

- *New Source Performance Regulations*, 10 CSR 10-6.070 – *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, 40 CFR Part 60, Subpart “III”

- *Maximum Achievable Control Technology (MACT) Regulations, 10 CSR 10-6.075, National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR Part 63, Subpart "ZZZZ"*

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted without special conditions.

Kathi Jantz
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated March 24, 2008, received March 24, 2008, designating Hannibal Regional Hospital as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Northeast Regional Office Site Survey, dated April 7, 2008.

Mr. Doug Ruble
Facility Manager
Hannibal Regional Hospital
6000 Hospital Drive
Hannibal, MO 63401

RE: New Source Review Permit - Project Number: 2008-03-075

Dear Mr. Ruble:

Enclosed with this letter is your permit to construct. Please study it carefully. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files.

Operation in accordance with these conditions, your new source review permit application and with your amended operating permit is necessary for continued compliance.

The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact Kathi Jantz, at the departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:kjl

Enclosures

c: Northeast Regional Office
PAMS File: 2008-03-075

Permit Number: