

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- NSPS SOURCE
RENEWAL

PERMITTEE

Little Company of Mary Hospital
Attn: James F. Joyce
2800 West 95th Street
Evergreen Park, Illinois 60642

Application No.: 73050238

I.D. No.: 031084AAC

Applicant's Designation:

Date Received: November 6, 2000

Subject: Boilers and Generators

Date Issued:

Expiration Date:

Location: 2800 West 95th Street, Evergreen Park

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of seven boilers, cogeneration system, and six emergency generators pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for nitrogen oxides (NO_x), carbon monoxide (CO) and sulfur dioxide (SO₂)). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permit(s) issued for this location.
- 2a. The cogeneration system is subject to a New Source Performance Standard (NSPS) for stationary gas turbines, 40 CFR 60, Subpart A and GG. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.
- b. The emission of nitrogen oxides and sulfur dioxide from the cogenerating turbine shall not exceed 150 ppm for each pollutant at the conditions specified in 40 CFR 60.332(a)(2) and 60.333(a), respectively, pursuant to the New Source Performance Standard.
- c. At all times, the Permittee shall, to the extent practicable, maintain and operate the gas turbine, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.
- d. The Permittee shall fulfill applicable notification and record keeping requirements of the NSPS, 40 CFR 60.7 and 60.334.

3. This permit is issued based on no construction, modification or reconstruction of the 7 boilers after June 9, 1989, thereby exempting such sources from the New Source Performance Standards (NSPS), Subpart Dc.

4. Fuel consumption in power and heat generating equipment and emissions shall not exceed the following limits:

a. Gas-Fired Mode:

<u>Item of Equipment</u>	<u>Natural Gas Consumption</u>		<u>NO_x Emissions</u>		<u>CO Emissions</u>	
	<u>(mmscf/Mo)</u>	<u>(mmscf/Yr)</u>	<u>(T/Mo)</u>	<u>(T/Yr)</u>	<u>(T/Mo)</u>	<u>(T/Yr)</u>
Boilers (Total)	50	180	2.5	9	2.1	7.6
Cogenerating Gas Turbine	40	400	6.5	65.3	1.7	16.8

b. Oil-Fired Mode:

<u>Item of Equipment</u>	<u>Fuel Oil Consumption</u> <u>(10³ Gal/Yr)</u>	<u>E M I S S I O N S</u>		
		<u>NO_x</u> <u>(T/Yr)</u>	<u>SO₂</u> <u>(T/Yr)</u>	<u>CO</u> <u>(T/Yr)</u>
Boilers (Total)	200	2.0	4.0	
Emergency Generators (Total)	19.5	6.0		1.3

c. The Agency shall be allowed to sample all fuels stored at the source.

d. This permit is issued based on the use of natural gas for the gas turbine. Use of any other fuel will require a revised permit.

e. These limits define the potential emissions of the nitrogen oxides, carbon monoxides and sulfur dioxides and are based on the actual emissions determined from maximum production capacity and standard emission factors.

f. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

5. No person shall cause or allow the emission of carbon monoxide into the atmosphere from each fuel combustion emission source to exceed 200 ppm, corrected to 50% excess air in accordance with 35 Ill. Adm. Code 216.121.

6. No person shall cause or allow the emission of particulate matter into the atmosphere from each individual boiler in any one hour period when burning residual fuel oil exclusively to exceed 0.1 lb/mmBtu in accord with 35 Ill. Adm. Code 212.206.

7. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from each boiler to exceed 0.3 lbs/mmBtu in any one hour period when burning distillate fuel oil exclusively in accord with 35 Ill. Adm. Code 214.161(b).
8. At the above location, the Permittee shall not keep, store, or utilize:
 - a. Distillate fuel oil (Grade No. 2) with a sulfur content greater than the larger of the following two values:
 - i. 0.28 weight percent, or
 - ii. The wt. percent given by the formula: Maximum wt. percent sulfur = $(0.000015) \times (\text{Gross heating value of oil, Btu/lb})$.
9. Organic liquid by-products or waste materials shall not be used in any fuel combustion emission source without written approval from the Illinois EPA.
10. The Illinois EPA shall be allowed to sample all fuels stored at the above location.
11. The Permittee shall notify the Illinois EPA prior to any change in the type of fuel used at the source.
12. Natural gas and distillate fuel oil shall be the only fuel(s) fired in the above referenced boilers.
13. The Permittee shall maintain monthly records of the following items:
 - a. Fuel type and consumption (mmscf/month and gallon/month); and
 - b. Sulfur content and heating value (% by wt. and Btu/lb or gal).
14. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.
15. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

16. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

17. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year:
- a. Annual usage of natural gas (mmscf/yr);
 - b. Annual usage of fuel oil (10^3 gal/yr); and
 - c. Sulfur content and heating value (wt. % and Btu/gal or lb).

If there have been no exceedances during the prior calendar year, the Annual Emission Report shall include a statement to that effect.

Please note that the incinerator has been removed from this permit and the 3 fuel oil storage tanks are exempt from state permit requirements, pursuant to 35 Ill. Adm. Code 201.146(n)(3).

If you have any questions on this, please call Randy Solomon at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

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cc: Region 1

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the power and heat generating equipment operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. This is a usage of 580 million cubic feet of natural gas and 219.5 thousand gallons of fuel oil per year. The resulting maximum emissions are well below the levels, e.g., 100 tons per year of NO_x, CO and SO₂ at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that material is handled, and control measures are more effective than required in this permit.

1. Emissions from the fuel combustion equipment:

a. Seven boilers (gas-fired mode):

Fuel Usage		Pollutant	Emission	Emissions	
(10 ⁶ scf/Mo)	(10 ⁶ scf/Yr)		Factor	(T/Mo)	(T/Yr)
50	180	NO _x	100	2.5	9
		CO	84	2.1	7.6

b. Seven boilers (#2 fuel oil-fired mode):

Fuel Usage	Pollutant	Emission	Emissions
(10 ³ gal/Yr)		Factor	(T/Yr)
200	NO _x	20	2.0
	SO ₂	39.8	4.0

c. Gas turbine:

Fuel Usage		Pollutant	Emission	Emissions	
(10 ⁶ scf/Mo)	(10 ⁶ scf/Yr)		Factor	(T/Mo)	(T/Yr)
40	400	NO _x	326	6.5	65.3
		CO	83.7	1.7	16.8

d. Six emergency generators (total):

Fuel Usage	Pollutant	Emission	Emissions
(10 ³ gal/Yr)		Factor	(T/Yr)
19.5	NO _x	617	6.0
	CO	133	1.3

2. This permit is issued based on negligible emissions of volatile organic material from 3 fuel oil storage tanks. For this purpose emissions from all such sources shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/yr.

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