

217-782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT REVISED

PERMITTEE

Oak Forest Hospital
Attn: Mr. Thomas R. Kennedy
15900 South Cicero Avenue
Oak Forest, Illinois 60452

Application No.: 85010011 I.D. No.: 031219AAI
Applicant's Designation: Date Received: September 14, 2000
Subject: Physical Plant
Date Issued: December 4, 2000 Expiration Date: July 21, 2005
Location: 15900 South Cicero Avenue, Oak Forest

Permit is here by granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of two natural gas and oil fired boilers rated at 59 mmBtu/hr, two natural gas and oil fired boilers rated at 40 mmBtu/hr, #2 fuel oil storage tanks: 3 @ 20,000 gal, 1 @ 6,000 gal, 2 @ 2,600 gal; 3 @ 2,000 gal, and emergency generator: 1 @ 1,000 kW, 6 @ 500 kW; 1 @ 350 kW. 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 nitrogen oxides and volatile organic material to less than 25 tons/year and particulate matter, carbon monoxide and sulfur dioxide from this hospital to less than 100 tons/year, as further described in Attachment A. As a result, the source is excluded from requirements to obtain a Clean Air Act Program permit.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes the current permit(s) issued for this location.
2. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from each individual boiler in any one-hour period when burning distillate fuel oil exclusively to exceed 0.3 lbs/mmBtu.
3. No person shall cause or allow the emission of carbon monoxide into the atmosphere from each individual boiler to exceed 200 ppm corrected to 50% excess air.
- 4a. Operation of the four boilers shall not exceed the following limits:
 - i. Boilers #1 and #4 Firing Rate: 59 mmBtu/hr gas and oil.
 - ii. Boilers #2 and #3 Firing Rate: 40 mmBtu/hr gas and oil.

- iii. Sulfur Content of #2 Fuel Oil: 0.29% by wt.
- iv. Total Natural Gas Usage: 307 million cubic feet per year.
- v. Total Fuel Oil Usage: 10,670 gallons per year.

- b. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the preceding 12 months.
 - c. The Illinois EPA shall be allowed to sample all fuels stored at the source.
- 5a. Operation of the eight standby emergency generators fired on #2 diesel oil shall not exceed the following limit:
- i. Maximum individual engine operating hours: 500 hrs/year.
 - ii. Maximum electric generation: 2175 Mw/year.
- b. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the preceding 12 months.
- 6a. The Permittee shall maintain monthly records of the following items:
- i. Natural gas usage for the four boilers (per/month and per/year).
 - ii. Number 2 diesel oil usage for the four boilers (per/month and per/year).
 - iii. Electric generation (MWH) of the eight emergency generators.
 - iv. Operating hours for each of the four boilers, and the 8 emergency generator engines.
 - v. Sulfur content of #2 diesel oil used.
- b. These records shall be kept at a readily accessible location at the plant for at least 3 years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request.
- 7a. Within 90 days of a written request from the Illinois EPA, pursuant to 35 Ill. Adm. Code 201.282 the nitrogen oxides (NO_x) and carbon monoxide (CO) emissions from the four boilers shall be measured by an approved testing service, during conditions which are representative of the maximum performance. The Illinois EPA may provide additional time for the performance of this testing upon request for the Permittee which shows that it is not feasible to perform representative testing within 90 days.
- b. i. The following methods and procedures shall be used for testing of emissions. Refer to 40 CFR 60, Appendix A for USEPA test methods:

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Molecular Weight	USEPA Method 3

Moisture	USEPA Method 4
Nitrogen Oxide	USEPA Method 7
Carbon Monoxide	USEPA Method 10
Hydrogen Chloride	USEPA Method 26

- ii. A test shall consist of three separate runs each at least 60 minutes in duration. Compliance shall be determined from the average of the runs provided that the Illinois EPA may accept the arithmetic mean of the runs in circumstances described in 40 CFR 60.8(f).
- c. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the tests. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that such shorter notification does not interfere with the Illinois EPA's ability to observe the testing.
- 8a. Organic liquid by products or waste materials shall not be used at this source without written approval from the Illinois EPA.
- b. The Permittee shall notify the Illinois EPA prior to any change in the type of fuel used at the source.

Please note that this permit has been revised to remove the medical waste incinerator as requested.

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

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

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cc: Region 1
Jennifer Pritchett, USEPA Region V

Attachment A - Emissions Summary

1. Emissions of nitrogen oxides (NO_x), carbon monoxide (CO), particulate matter (PM), sulfur dioxide and volatile organic material (VOM).

Boiler Emissions (Ton/Yr)

<u>Fuel</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>NO_x</u>	<u>CO</u>	<u>VOM</u>
Natural Gas	0.85	0.08	19.18	4.79	0.79
Fuel Oil	<u>0.01</u>	<u>0.23</u>	<u>0.107</u>	<u>0.027</u>	<u>0.01</u>
Total	0.86	0.31	19.287	4.817	0.8

This table defines the potential emissions from the four boilers based on the maximum emissions determined by standard emission factors and maximum firing rates.

2. Emissions of nitrogen oxides (NO_x), carbon monoxide (CO), particulate matter (PM), volatile organic material (VOM) from the eight emergency generator engines with a total generating capacity of 4350 kW and operating 500 hrs per year.

Emergency Generator Engines

<u>Emissions</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>NO_x</u>	<u>CO</u>	<u>VOM</u>
(Lbs/Hr)	Neg.	14.14	134.24	30.67	4.13
(Tons/Yr)	Neg.	3.53	33.56	7.67	1.03

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