

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Holy Cross Hospital
Attn: Director of Facilities
2701 West 68th Street
Chicago, Illinois 60629

Application No.: 91040030

I.D. No.: 031600EDD

Applicant's Designation:

Date Received: June 27, 2000

Subject: Hospital

Date Issued:

Expiration Date: 5 Yrs from Issuance

Location: 2701 West 68th Street, Chicago, 60629

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of the three EtO sterilizers, three gas-fired boilers with #2 fuel oil back-up, three diesel emergency generators, two space heating furnaces and two storage tanks 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 (FESOP) is issued to limit the emissions of nitrogen oxides (NO_x) and sulfur dioxide (SO₂) to less than major source thresholds, i.e., less than 25 tons/year of NO_x and less than 100 tons/year of SO₂, as further described in Attachment A. As a result, the source is excluded from requirements to obtain a Clean Air Act Permit 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.
- 2a. Total combined operation of the three boilers shall not exceed the following limits:
 - i. Natural Gas Usage: 50×10^6 scf/month and 315×10^6 scf/year.
 - ii. #2 Fuel Oil Usage: 15×10^3 gal/month or 15×10^3 gal/year.These limits define the potential emissions of NO_x and SO₂ and are based on the maximum natural gas and #2 fuel oil usage.
- b. Total combined operation of the two natural gas fired laundry dryers and two space heating furnaces shall not exceed the following limits:
 - i. Natural gas usage: 1×10^6 scf/month and 7.0×10^6 scf/year.

- c. Total combined operation of the three diesel generators shall not exceed the following limits:

#2 Fuel Oil Usage: 2,000 gal/month and 10,000 gal/year

These limits define the potential emissions of NO_x and SO₂ and are based on the maximum #2 fuel oil usage.

- d. Total combined operation of the three Ethylene Oxide Sterilizers shall not exceed the following limits:

Ethylene Oxide Usage: 45 lb/month and 450 lb/year

- e. 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.

- f.
 - i. Permittee shall not keep, store, or utilize a fuel with a sulfur content greater than 0.3 weight percent for #2 fuel oil.
 - ii. The Illinois EPA shall be allowed to sample all fuels stored at the source.

- 3a. Within 30 days of a written request from the Illinois EPA the Permittee shall submit data on the sulfur content by weight of representative #2 fuel oil, determined by laboratory analysis.

- b. The submitted data shall include the sulfur content by weight of the #2 fuel oil, a justification of why this is representative, and a description of the sampling procedures and documentation for analysis.

- c. The Illinois EPA may provide additional time for the performance of this testing upon request from the Permittee which shows that it is not feasible to perform representative testing within 30 days.

- 4a. The Permittee shall maintain records of the following items:

- i. Natural gas usage (10⁶ scf/month and 10⁶ scf/year).

- ii. #2 fuel usage (gal/month and 10³ gal/year).

- iii. Ethylene oxide usage (lb/month and lb/year).

- b. 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 and USEPA upon request. Any records retained in a 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.

5. 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 record keeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences. This report should be sent to:

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

6. This permit is issued based on negligible emissions of volatile organic material from the three storage tanks. For this purpose emissions from all emission sources, shall not exceed nominal emission rates of 0.05 lb/hour and 0.22 ton/year.
- 7a. 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.
8. The Permittee shall submit the following additional information from the prior calendar year with the Annual Emissions Report, due May 1st of each year:
 - a. Total natural gas usage.
 - b. Total #2 fuel oil usage.
 - c. Total ethylene oxide usage.

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

DES:JDC:psj

cc: IEPA, FOS Region 1
IEPA, FOS - CMU
USEPA

Attachment A - Emissions Summary

1a. Total combined emissions from boilers:

i. Natural gas combustion.

<u>Pollutant</u>	<u>Natural Gas Usage (10⁶ scf/Yr)</u>	<u>Emission Rate (lb/10⁶ scf)</u>	<u>Annual Emissions (Tons/Year)</u>
NO _x	315	100	15.75
CO	315	84	13.23
PM	315	1.9	0.30
VOM	315	5.5	0.87

ii. #2 fuel oil.

<u>Pollutant</u>	<u>Fuel Oil Usage (10³ Gal/Yr)</u>	<u>Emission Rate (lb/10³ Gal)</u>	<u>Annual Emissions (Tons/Year)</u>
NO _x	15	20.0	0.15
CO	15	5.0	0.038
PM	15	2.0	0.015
SO ₂	15	42.6	0.32

These tables define the potential emissions of the boilers and are based on standard emission factors given by AP-42.

b. Total combined emissions from laundry dryers and space heaters:

<u>Pollutant</u>	<u>Natural Gas Usage (10⁶ scf/Yr)</u>	<u>Emission Rate (Lb/10⁶ scf)</u>	<u>Annual emissions (Tons/Year)</u>
NO _x	7.0	100	0.35
CO	7.0	84	0.29

This table defines the potential emissions of the laundry dryers and space heaters and is based on standard emission factors given by AP-42.

c. Total combined emissions from emergency diesel generators:

<u>Pollutant</u>	<u>Fuel Oil Usage (10³ Gal/Yr)</u>	<u>Emission Rate (Lb/10³ Gal)</u>	<u>Annual Emissions (Tons/Year)</u>
NO _x	10	85.11	0.43
CO	10	18.34	0.09
SO ₂	10	5.60	0.03

This table defines the potential emissions of emergency generators and is based on standard emission factors given by AP-42.

- d. Total emissions of ethylene oxide from the ethylene oxide sterilizers:

<u>EtO Usage</u>		<u>EtO Emissions</u>	
<u>(Lb/Month)</u>	<u>(Lb/Year)</u>	<u>(Lb/Month)</u>	<u>(Lb/Year)</u>
45	450	12	121

This table defines the potential emissions of ethylene oxide from three sterilizers. These limits are based on uncontrolled emissions from unit #1 and controlled EtO emissions from units #2 and 3.

- e. Total VOM emissions from storage tanks:

VOM emissions from all storage tanks shall not exceed nominal emission rates of 0.05 lb/hour and 0.22 ton/year.

JDC:psj