

217/782-2113

"RENEWAL"
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Provena Hospitals D/B/A St. Therese Medical Center
Attn: Thomas Walsh
2615 West Washington Street
Waukegan, Illinois 60085

Application No.: 73031065

I.D. No.: 097190AAW

Applicant's Designation:

Date Received: April 3, 2000

Subject: Medical Center

Date Issued:

Expiration Date: (Five Years from Date
of Issuance)

Location: 2615 West Washington Street, Waukegan

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a two EtO sterilizers, three gas-fired boilers with #6 fuel oil back-up, two diesel emergency generators, and three 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: 30 x 10⁶ scf/month and 150 x 10⁶ scf/year
 - ii. #6 Fuel Oil Usage: 150 x 10³ gal/month or 150 x 10³ gal/year

These limits define the potential emissions of NO_x and SO₂ and are based on the maximum natural gas and #6 fuel oil usage.

- b. Total combined operation of the two diesel generators shall not exceed the following limits:

#2 Fuel Oil Usage: 10,000 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.

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

Ethylene Oxide Usage: 45 lb/month and 526 lb/year

- d. 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.

- e. i. Permittee shall not keep, store, or utilize a fuel with a sulfur content greater than 1.0 weight percent for #6 fuel oil and 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 #6 and/or #2 fuel oil, determined by laboratory analysis.

- b. The submitted data shall include the sulfur content by weight of the #6 and/or #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. #6 Fuel Oil Usage (10³ gal/month and 10³ gal/year)

- iii. #2 Fuel Usage (gal/month and 10³ gal/year)

- iv. Ethylene Oxide Usage (lb/month and lb/year)

- b. All records required by this permit shall be retained 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 and USEPA upon request.
5. If there is an exceedance of the requirements of this permit as determined by the record 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. 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 with the Annual Emissions Report, due May 1st of each year: gas and fuel oil consumption from the prior calendar year.

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:jar

cc: Illinois EPA, FOS Region 1
Illinois EPA, Compliance Section
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	150	140	10.5
CO	150	35	2.62
PM	150	13.7	1.02
VOM	150	5.8	0.43

ii. #6 Fuel oil

<u>Pollutant</u>	<u>Natural Gas Usage (10³ Gal/Yr)</u>	<u>Emission rate (Lb/10³ Gal)</u>	<u>Annual emissions (Tons/Year)</u>
NO _x	150	55.0	4.12
CO	150	5.0	0.38
PM	150	11.58	0.87
VOM	150	1.28	0.1
SO ₂	150	142.87	10.72

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

b. Total emissions from emergency diesel generators

<u>Pollutant</u>	<u>Natural Gas Usage (10³ Gal/Yr)</u>	<u>Emission rate (Lb/10³ Gal)</u>	<u>Annual emissions (Tons/Year)</u>
NO _x	10	434	2.17
CO	10	113.4	0.57
SO ₂	10	39.2	0.2
VOM	10	14	0.07

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

c. Total emissions of Ethylene Oxide from the ethylene oxide sterilizers:

<u>EtO Used Per Cycle (Lb/Cycle)</u>	<u>Amount of Cycles (Cycles/Mo)(Cycles/Yr)</u>		<u>EtO Usage (Lb/Mo)(Lb/Yr)</u>		<u>VOM Emissions (Lb/Mo)(Lb/Yr)</u>	
0.36	124	1,460	45	526	45	526

This table defines the potential emissions of Ethylene Oxides from two sterilizers.

d. 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:jar