

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - RENEWAL

PERMITTEE

Victory Memorial Hospital  
Attn: Robert Henne  
1324 North Sheridan Road  
Waukegan, Illinois 60085

Application No.: 91020067                      I.D. No.: 097190ADC  
Applicant's Designation:                      Date Received: May 12, 2000  
Subject: Hospital  
Date Issued: September 12, 2000              Expiration Date: September 12, 2005  
Location: 1324 North Sheridan Road, Waukegan

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of three boilers, three ethylene oxide sterilizers, and emergency engine generator as described in 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 potential emissions of nitrogen oxides and sulfur dioxides to less than major source thresholds, as further described in Attachment A. As a result, the source is excluded from the 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 all operating permits issued for this location.
2. The design capacity of the three boilers shall be 38.8 million Btu/hr, 38.8 million Btu/hr and 16.8 million Btu/hr.
- 3a. Operation of the three boilers shall not exceed the following limits:
  - i. Natural Gas Consumption: 500,000 therms/month and 1,500,000 therms/year.
  - ii. #2 Fuel Oil Consumption: 85,000 gallons/month and 150,000 gallons/year.
- b.
  - i. At the above location, the Permittee shall not keep, store, or utilize a fuel with a sulfur content greater than 0.29 weight percent.
  - ii. The Agency shall be allowed to sample all fuels stored at the

source.

- c. This permit is issued based on the use of natural gas and #2 fuel oil for the three boilers. Use of any other fuel will require a revised permit.

- d. These limits define the potential emissions of the three boilers operation and are based on the actual emissions determined from maximum production capacity and standard emission factors.
- 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.

- 4a. Operation of the three ethylene oxide sterilizers shall not exceed the following limits:

Ethylene Oxide Usage: 129 pounds/month and 1546 pounds/year.

Dichlorodifluoromethane (CFC-12) Usage: 945 pounds/month and 11,331 pounds/year.

- b. These limits define the potential emissions of the ethylene oxide sterilizers operation and are based on the actual emissions determined from maximum production capacity and material balance.
- c. 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.

- 5a. Operation of the standby engine generator shall not exceed the following limits:

- i. #2 Fuel Oil Usage: 8,670 gallons/month and 8,670 gallons/year.

- b. These limits define the potential emissions of the standby engine generator operation and are based on the actual emissions determined from maximum production capacity and standard emission factors.
- c. 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.

- 6. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program Permit (CAAPP), and Section 112(G) of the Clean Air Act.

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

- a. Natural gas consumption for the boilers (therms/month and

therms/year);

- b. #2 fuel oil consumption for the boilers (gallons/month and gallons/year);
- c. Ethylene oxide and CFC-12 usage for the ethylene oxide sterilizer (lb/month and lb/year);

- d. #2 fuel oil consumption for the standby engine generators (gallons/month and gallons/year); and
  - e. Operating and maintenance logs for the boilers including maintenance activities, with date and description of inspections, repair actions, and replacements, etc.
8. 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 or USEPA 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 or USEPA request for records during the course of a source inspection.
9. 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.
10. 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  
Eisenhower Tower  
1701 South First Avenue  
Maywood, Illinois 60153

11. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: fuel oil and natural gas consumption from the prior calendar year. If there has been no exceedances during the prior calendar year the Annual Emissions Report shall include a statement to that effect.



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If you have any questions on this, please call Tara T. Nguyen-Ede 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 emissions from the hospital 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. The resulting maximum emissions are well below the levels, e.g., 100 tons/year for nitrogen oxides (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) 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 less material is handled, and control measures are more effective than required in this permit.

1. Emissions and operation of the three boilers shall not exceed the following limits:

<u>Material</u>	<u>Usage</u>		<u>Pollutant</u>	<u>Emission Factor</u> (Lb/1000 Gal)	<u>Emissions</u>	
	(10 <sup>3</sup> Gal/Mo)	(10 <sup>3</sup> Gal/Yr)			(T/Mo)	(T/Yr)
#2 Fuel Oil	85	150	NO <sub>x</sub>	20	0.85	1.5
			CO	5	0.21	0.38
			TSP	2	0.09	0.15
			SO <sub>2</sub>	42	1.79	3.15
			VOM	0.252	0.01	0.02

<u>Material</u>	<u>Usage</u>		<u>Pollutant</u>	<u>Emission Factor</u> (Lb/mmscf)	<u>Emissions</u>	
	(mmscf/Mo)	(mmscf/Yr)			(T/Mo)	(T/Yr)
Natural Gas	50	150	NO <sub>x</sub>	100	2.5	7.5
			CO	84	2.1	6.3
			TSP	7.6	0.19	0.57
			SO <sub>2</sub>	0.6	0.02	0.05
			VOM	5.5	0.14	0.41

These limits define the potential emissions of NO<sub>x</sub>, CO, TSP, SO<sub>2</sub>, and VOM and are based on maximum material usage and standard emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

2. Emissions and operation of the emergency engine generator shall not exceed the following limits:

<u>Material</u>	<u>Usage</u>		<u>Pollutant</u>	<u>Emission Factor</u> (Lb/mmBtu)	<u>Emissions</u>	
	(10 <sup>3</sup> Gal/Mo)	(10 <sup>3</sup> Gal/Yr)			(T/Mo)	(T/Yr)
#2 Fuel Oil	8,760	8,760	NO <sub>x</sub>	3.2	1.94	1.94
			CO	0.85	0.52	0.52
			TSP	0.1	0.06	0.06
			SO <sub>2</sub>	0.505	0.31	0.31
			VOM	0.09	0.05	0.05

These limits define the potential emissions of NO<sub>x</sub>, CO, TSP, SO<sub>2</sub>, and VOM and are based on maximum material usage, conversion factor of 0.14 mmBtu/gallon, and standard emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

3. Emissions and operation of the three ethylene oxide sterilizers shall not exceed the following limits:

Ethylene Oxide Usage		CFC-12 Usage		VOM Emissions		Non-VOM Emissions	
(Lb/Mo)	(Lb/Yr)	(Lb/Mo)	(Lb/Yr)	(Ton/Mo)	(Ton/Yr)	(Ton/Mo)	(Ton/Yr)
129	1,546	945	11,331	0.064	0.77	0.47	5.67

These limits define potential emissions of VOM and Non-VOM and are based on maximum material usage and material balance. Compliance with annual limits shall be determined from a running total of 12 months of data.

4. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program Permit (CAAPP), and Section 112(G) of the Clean Air Act.

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