217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Hinsdale Hospital
Attn: Alan First
120 North Oak Street
Hinsdale, Illinois 60521

Application No.: 95060059 I.D. No.: 043452AAQ
Applicant's Designation: Date Received: August 30, 1999
Subject: Hospital
Date Issued: November 19, 1999 Expiration Date: September 18, 2003
Location: 120 North Oak Street, Hinsdale

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of the two natural gas-fired boilers with a distillate fuel oil as back-up, cogeneration system operating four natural gas-fired reciprocating engines, four fuel oil-fired emergency generators, one medical waste incinerator with baghouse, two ethylene oxide sterilizers and one paint booth 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., less than 100 tons/year for nitrogen oxides ($N0_x$), 25 tons/year for volatile organic materials (VOM), 10 tons/year for a single hazardous air pollutant (HAP) and 25 tons/year for totaled HAP), as further described in Attachment A. As a result, the source is excluded from requirements to obtain a Clean Air Act Permit Program 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 including permits effective pursuant to 415 ILCS 5/39.5(4).

2. This permit is issued based on two boilers not being subject to New Source Performance Standard (NSPS) for Small Industrial - Commercial - Institutional Steam Generating Units, 40 CFR 60, Subpart A and Dc due to date of construction before June 9, 1989.

3. Operation and emissions of the boilers and engines shall not exceed the following limits:

a. Two boilers:

i. Natural gas firing mode:

Natural Gas Usage: 20 mmscf/mo, 200 mmscf/yr

Pollutant	Emission Factor (lb/mmscf)	Emissions (Lb/Mo)	(Ton/Yr)
Nitrogen Oxides (NO_x)	100	2,000	10.0
Volatile Organic Materials (VOM)	5.5	110	0.5
Carbon Monoxide (CO)	84	1,680	8.4
Particulate Matter (PM)	7.6	152	0.8

ii. Distillate Fuel Oil #1 or #2 firing mode:

Fuel Oil Usage: 10,000 gal/mo, 10,000 gal/yr

Pollutant	Emission Factor (Lb/10^3 Gal)	Emissions (Lb/Mo)	(Ton/Yr)
Nitrogen Oxides (NO_x)	20	200	0.1
Sulfur Dioxide (SO_2)	42.6	426	0.2

b. Four reciprocating engines (total):

Operating Rate (% of Load)	Operating Hours (Hr/Yr)	Emission Factors (Lb/Hr-Eng) NO_x	VOM	CO	E M I S S I O N S NO_x (Lb/Hr)	NO_x (T/Yr)	VOM (Lb/Hr)	VOM (T/Yr)	CO (Lb/Hr)	CO (T/Yr)
92 - 100	16,000	2.66	1.52	4.05	10.6	21.2	6.1	12.2	16.2	32.4
75 - 92	8,000	11.61	0.95	2.66	46.4	46.4	3.8	3.8	10.6	10.6
					Total:	67.6		16.0		43.0

c. Four emergency generators:

Fuel Oil Usage: 10,000 gal/mo, 10,000 gal/yr

Pollutant	Emission Factor (lb/10^3 Gal)	Emissions (Ton/Mo)	(Ton/Yr)
Nitrogen Oxides (NO_x)	618	3.1	3.1

(Continued)

Pollutant	Emission Factor (lb/10^3 Gal)	Emissions (Ton/Mo)	(Ton/Yr)
Volatile Organic Materials (VOM)	49	0.25	0.25
Carbon Monoxide (CO)	133	0.7	0.7
Sulfur Dioxide (SO_2)	41	0.2	0.2
Particulate Matter (PM)	43	0.2	0.2

d. These limits define the potential emissions and are based on the standard emission factors given by AP-42 for boilers and emergency generators and manufacturer emission factors for the engines.

e. Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data. Initial compliance shall be determined after 12 months of data accumulation from the effective date of this permit.

4. Operation and emissions of the paint booth shall not exceed the following limits:

Paint Usage (Gal/Mo)	(Gal/Yr)	VOM Content (Lb/Gal)	VOM Emissions (Lb/Mo)	(T/Yr)
50	500	7.2	360	1.8

These limits are based on the maximum production rate. Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data. Initial compliance shall be determined after 12 months of data accumulation from the effective date of this permit.

5a. This permit is issued based on waste incinerator not being subject to the requirements of 40 CFR Part 60, Subpart Ec “Standards of Performance for Hospital/Medical/Infectious Waste Incinerators” because construction of this incinerator commenced before June 20, 1996.

b. This federally enforceable permit does not relieve the Permittee from compliance with any future state and/or federal rules that should be adopted in accordance with 40 CFR Part 60, Subpart Ce “Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators”.

6. Operation and emissions of the medical waste incinerator shall not exceed the following limits:

Waste Charging Rate: 60 tons/mo, 600 tons/yr

Pollutant	Emission Factor (Lb/Ton)	Emissions (Ton/Mo)	(Ton/Yr)
Nitrogen Oxides (NO_x)	3.0	0.1	0.9
Hydrogen Chloride (HCl)	30.8	0.9	9.2
Particulate Matter (PM)	3.1	0.1	0.9

These limits define the potential emissions of the medical waste incinerator and are based on standard emission factor for NO_x and emission factor derived from the most recent stack test for HCl and PM.

Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data. Initial compliance shall be determined after 12 months of data accumulation from the effective date of this permit.

7. Only general hospital waste, including medical and potentially infectious medical waste, shall be charged to the incinerator.

8a. Medical waste incinerator shall be equipped with an afterburner combustion chamber temperature indicator and strip chart recorder or disk storage for the afterburner combustion temperature.

b. The afterburner combustion chamber of the medical waste incinerator shall be preheated and maintained at the manufacturer’s recommended temperature but not lower than 1400EF. This temperature shall be maintained until burnout of waste in the primary chamber is completed.

9. This permit is issued based on negligible emissions of ethylene oxide from the two ethylene oxide sterilizers. For this purpose emissions from each emission unit shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

10a. At the above location, the Permittee shall not utilize in the boilers a distillate fuel oil (Grades No.1 and 2) with a sulfur content greater than the 0.3 weight percent.

b. Organic liquid by-products or waste materials shall not be used to fuel the boilers without written approval from the Illinois EPA.

c. The Illinois EPA shall be allowed to sample all fuels stored at the above location.

11a. The Permittee shall maintain records of the following items:

i. Natural gas usage (mmscf/month and mmscf/year, or therms/month and therms/year) separately for boilers and engines.

ii. Fuel oil usage (gal/month and gal/year) separately for boilers and emergency generators.

iii. Hours of operation for each engine (hours/month and hours/year) and operating rate (percent of peak load).

iv. Amount of waste incinerated (tons/month and tons/year).

v. Operating logs for an incinerator, which includes:

A. Time of operation;

B. Responsible individual; and

C. Operating temperature of the secondary combustion chamber prior to charging waste and at completion of waste burnout;

vi. Inspection and maintenance logs for incinerator, with dates of inspection, maintenance, repair, or other actions completed; and

vii. Emissions of NO_x, VOM and HCl calculated monthly based on the recordkeeping requirements of this permit.

b. All records and logs required by this permit shall be completed by the last day of the month following the reported month and 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 the Illinois EPA or USEPA request for records during the course of a source inspection.

12. 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 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.

13a. The Permittee shall submit the following additional information from the prior calendar year, along with the Annual Emissions Report, due May 1st of each year:

i. Boilers natural gas usage (mmscf/year);

ii. Fuel oil usage (gallons/year);

iii. Engines operating hours (hours/Year); and

iv. Amount of waste incinerated (tons/year).

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

14. 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 regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Eisenhower Tower
1701 First Avenue
Maywood, Illinois 60153

15. The medical waste incinerator in this permit is subject to the provisions of 35 Ill. Adm. Code Part 229. As a complete Clean Air Act Permit Program (CAAPP) Application with compliance program has not been filed by November 15, 1999 the incinerator is required to be in compliance by September 15, 2000 with all provisions of the 35 Ill. Adm. Code Part 229 regulations including in part the following:

a. Comply with emission limits per 35 Ill. Adm. Code 229.120(a).

b. Submit a Clean Air Act Permit Program (CAAPP) application per 35 Ill. Adm. Code 229.120(b).

c. Conduct an initial compliance test per 35 Ill. Adm. Code 229.142(a) and subsequent annual emission tests in accord with 35 Ill. Adm. Code 229.146 and 229.148.

d. Continue to monitor site operating parameters after initial compliance test per 35 Ill. Adm. Code 229.170.

e. Have a trained and qualified operator on site when incinerator is operated per 35 Ill. Adm. Code 229.170.

f. Other recordkeeping and reporting requirements per 35 Ill. Adm. Code Part 229.

Please note that this permit has been revised to incorporate the new baghouse and applicable requirements of the medical waste incinerator rules.

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

This attachment provides a summary of the maximum emission from the hospital 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 source. This is combustion of 200 mmscf of natural gas and 10,000 gallons of fuel oil in the boilers, 24,000 hours of combined cogeneration system engines operation, usage of 10,000 gallons of fuel oil in the emergency generators, and combustion of 600 tons of medical waste per year. The resulting maximum emissions are well below 100 tons per year of NO_x, 25 tons of VOM and 10 tons per year for any individual HAP and 25 tons per year for totaled HAPs 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. Boilers

NO_x		CO		PM		VOM		SO_2	
(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)
1.1	10.1	0.8	8.4	0.1	0.8	0.05	0.5	0.2	0.3

2. Engines

NO_x		CO		VOM	
(Lb/Hr)	(T/Yr)	(Lb/Hr)	(T/Yr)	(Lb/Hr)	(T/Yr)
57.0	67.6	16.2	43.0	6.1	16.0

3. Emergency Generators

NO_x		CO		PM		VOM		SO_2	
(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)
3.1	3.1	0.7	0.7	0.2	0.2	0.25	0.25	0.2	0.2

4. Medical Waste Incinerator

HCl Emissions		NO_x Emissions		PM Emissions	
(Tons/Month)	(Tons/Yr)	(Tons/Month)	(Tons/Yr)	(Tons/Month)	(Tons/Yr)
0.9	9.2	0.1	0.9	0.1	0.9

5. Paint Booth: VOM Emissions 360 lb/mo, 1.8 ton/yr.

6. This permit is issued based on negligible emissions of ethylene oxide from the two ethylene oxide sterilizers. For this purpose emissions from each emission unit shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

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