

PROPOSED CAAPP PERMIT
Loyola University Medical Center
I.D. No.: 031817AAB
Application No.: 95060004
July 22, 2004

217/782-2113

"REVISED"
TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT
and
TITLE I PERMIT¹

PERMITTEE

Loyola University Medical Center
Attn: John Scanlon, Director, Physical Plant and Grounds
2160 South First Avenue
Maywood, Illinois 60153

<u>Application No.:</u> 95060004	<u>I.D. No.:</u> 031817AAB
<u>Applicant's Designation:</u>	<u>Date Received:</u> June 5, 1995
<u>Operation of:</u> Medical Center	
<u>Date Issued:</u> September 5, 2000	<u>Expiration Date²:</u> September 4, 2005
<u>Source Location:</u> 2160 South First Avenue, Maywood, Cook County	
<u>Responsible Official:</u> John Scanlon, Director, Physical Plant and Grounds	

This permit is hereby granted to the above-designated Permittee to OPERATE a Medical Center, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

Revision Date Received: October 28, 2002
Revision Date Issued: TO BE DETERMINED
Purpose of Revision: Minor Modification

This minor modification reflects revisions to this permit by including an air pollution control device (wet scrubber, Construction permit 99040051) for HMIWI and clarification of various operating parameters (waste charging rate, temperature, and other monitoring parameters established during testing) and emissions for HMIWI in Section 7.1.

If you have any questions concerning this permit, please contact Anatoly Belogorsky at 217/782-2113.

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

DES:AB:jar

cc: Illinois EPA, FOS, Region 1
USEPA

¹ This permit may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the CAA and regulations promulgated thereunder, including 40 CFR 52.21 - federal PSD and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within this permit.

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² Except as provided in Condition 8.7 of this permit.

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1.0 SOURCE IDENTIFICATION

1.1 Source

Loyola University Medical Center
2160 South First Avenue
Maywood, Illinois 60153
708/216-8545

I.D. No.: 031817AAB
Standard Industrial Classification: 8062, Health Services

1.2 Owner/Parent Company

Loyola University Medical Center
2160 South First Avenue
Maywood, Illinois 60153

1.3 Operator

Loyola University Medical Center
2160 South First Avenue
Maywood, Illinois 60153

John Scanlon, Director, Physical Plant and Grounds
708/216-8545

1.4 General Source Description

Loyola University Medical Center is located at 2160 South First Avenue in Maywood and provides health care services. The Medical Center operates the following significant emission units at this site: five boilers, one Hospital/Medical/Infectious Waste Incinerator, one gasoline storage tank, and four ethylene oxide sterilizers.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

ACMA	Alternative Compliance Market Account
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ATU	Allotment Trading Unit
BAT	Best Available Technology
Btu	British thermal unit
°C	Degrees Celsius
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CEMS	Continuous Emission Monitoring System
cfm	Cubic foot per minute
CFR	Code of Federal Regulations
CO	Carbon Monoxide
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
ft	Feet
G	Grams
gal	Gallons
gr	Grains
HAP	Hazardous Air Pollutant
HCL	Hydrogen Chloride
Hg	Mercury
HMIWI	Hospital/Medical/Infectious Waste Incinerator
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
Illinois EPA	Illinois Environmental Protection Agency
kW	kilowatts
l	liter
LAER	Lowest Achievable Emission Rate
lb	pound
MACT	Maximum Achievable Control Technology
mg	milligram
mmBtu	Million British thermal units
mmscf	Million standard cubic feet
mo	month
MW	Megawatts
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM ₁₀	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration

RMP	Risk Management Plan
scf	Standard cubic feet
scm	Standard cubic meters
SO ₂	Sulfur Dioxide
TEQ	Toxic equivalency
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOM	Volatile Organic Material
yr	year

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

- 3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

None

- 3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

None

- 3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

- a. Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane or liquefied petroleum gas; (B) units with a rated heat input capacity of less than 1.0 mmBtu/hr that fire only oil or oil in combination with natural gas, propane, or liquefied petroleum gas; and (C) units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a)(4)].
- b. Storage tanks of organic liquids with a capacity of less than 10,000 gallons and an annual throughput of less than 100,000 gallons provided the tank is not used for the storage of gasoline or any listed hazardous air pollutant pursuant to Section 112(b) of the Clean Air Act [35 IAC 201.210(a)(10)].
- c. Gas turbines and stationary reciprocating internal combustion engines of between 112 kW and 1,118 kW (1500 and 1,500 horsepower) power output that are emergency or standby units [35 IAC 201.210(a)(16)].

- 3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the

Permittee shall comply with the following requirements, as applicable:

- 3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.
- 3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.
- 3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.3 Addition of Insignificant Activities

- 3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).
- 3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.
- 3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 1	Hospital/Medical/ Infectious Waste Incinerator	1993	Dual Atomizer Wet Scrubber
Unit 2	Boilers: #1 #2 #3 #4 #5	1943 1992 1993 1990 1981	None
Unit 3	Gasoline Storage Tank	1994	Submerged Loading Pipe
Unit 4	Ethylene Oxide Sterilizers	1994	Abator System

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of HAP emissions and because the source is subject to a standard, limitation, or other requirement under Section 111 (NSPS) or Section 112 (HAPs) of the CAA for which USEPA requires a CAAPP permit, or because the source is in a source category designated by the USEPA pursuant to 40 CFR 70.3(a)(2), (3), and (5) (40 CFR 20.3 Applicability) [Section 39.5(2)(a)(ii) and (iv) of the Act].

5.2 Applicable Regulations

5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.

5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:

a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.

Compliance with this requirement is considered to be assured by the inherent nature of operations at this source, as demonstrated by historical operation.

b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

5.2.3 The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the

standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.2.4 Risk Management Plan

Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in 40 CFR Part 68, then the owner or operator shall submit [40 CFR 68.215(a)(2)(i) and (ii)]:

- a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
- b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual compliance certification required by 40 CFR Part 70 or 71.

- 5.2.5 a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.
- b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.

5.2.6 Episode Action Plan

- a. If the source is required to have an episode action plan pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.

- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.
- c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.
- d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to:
 - i. Illinois EPA, Compliance Section; and
 - ii. For sources located in Cook County and outside of the city of Chicago: Cook County Department of Environmental Control; or
 - iii. For sources located within the city of Chicago: Chicago Department of Environmental Control.

5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the purpose of establishing fees and are not federally enforceable.

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	5.52
Sulfur Dioxide (SO ₂)	3.69

Particulate Matter (PM)	5.51
Nitrogen Oxides (NO _x)	62.77
HAP, Not Included in VOM or PM	21.19
Total	98.68

5.5.2 Emissions of Hazardous Air Pollutants

Source-wide emission limitations for HAPs as listed in Section 112(b) of the CAA are not set. This source is considered to be a major source of HAPs.

5.5.3 Other Source-Wide Emission Limitations

None

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.

5.6.2 Retention and Availability of Records

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of noncompliance of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year.

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and compliance procedures in Section 7 (Unit Specific Conditions) of this permit.

6.0 EMISSIONS REDUCTION MARKET SYSTEM (ERMS)

6.1 Description of ERMS

The ERMS is a "cap and trade" market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as required by Section 182(c) of the CAA.

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. Participating sources must hold "allotment trading units" (ATUs) for their actual seasonal VOM emissions. Each year participating sources are issued ATUs based on allotments set in the sources' CAAPP permits. These allotments are established from historical VOM emissions or "baseline emissions" lowered to provide the emissions reductions from stationary sources required for reasonable further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source should have sufficient ATUs in its transaction account to cover its actual VOM emissions during the preceding season. A transaction account's balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the transaction account database. The Illinois EPA will then retire ATUs in sources' transaction accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its transaction account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

In addition to receiving ATUs pursuant to their allotments, participating sources may also obtain ATUs from the market, including ATUs bought from other participating sources and general participants in the ERMS that hold ATUs (35 IAC 205.630) and ATUs issued by the Illinois EPA as a consequence of VOM emissions reductions from an Emissions Reduction Generator or an Intersector Transaction (35 IAC 205.500 and 35 IAC 205.510). During the reconciliation period, sources may also buy ATUs from a secondary reserve of ATUs managed by the Illinois EPA, the "Alternative Compliance Market Account" (ACMA) (35 IAC 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 IAC 205.630).

6.2 Applicability

This permit is issued based on this source not being a participating source in the Emissions Reduction Market System (ERMS), 35 IAC Part 205, pursuant to 35 IAC 205.200. This is based on the source's actual VOM emissions during the seasonal allotment period from May 1 through September 30 of each year being less than 10 tons and the source's baseline emissions also being less than 10 tons.

6.3 Recordkeeping and Reporting

- a. The Permittee shall maintain the following records to allow the confirmation of actual VOM emissions during the seasonal allotment period:
 - i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as specified in Sections 5 and 7 of this permit, as appropriate, to determine actual VOM emissions during the seasonal allotment period;
 - ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures specified in Sections 5 and 7 of this permit; and
 - iii. Total VOM emissions from the source, in tons, during each seasonal allotment period, which shall be compiled by November 30 of each year.
- b. In the event that the source's VOM emissions during the seasonal allotment period equal or exceed 10 tons, the source shall become a participating source in the ERMS and beginning with the following seasonal allotment period, shall comply with 35 IAC Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period, unless the source obtains exemption from the ERMS by operating with seasonal VOM emissions of no more than 15 tons pursuant to a limitation applied for and established in its CAAPP permit.

6.4 Federal Enforceability

Section 6.0 becomes federally enforceable upon approval of the ERMS by USEPA as part of Illinois' State Implementation Plan.

7.0 UNIT SPECIFIC CONDITIONS

7.1 Unit 1: Hospital Medical Infectious Waste Incinerator (HMIWI)

7.1.1 Description

A batch HMIWI is used for disposal (incineration) of the hospital/medical infectious waste generated by the hospital operations.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Unit 1: HMIWI	Batch HMIWI with a Maximum Waste Charging Rate: Mode 1 (Two Atomizers) - 1,450 lb/hr Mode 2 (One Atomizer) - 1,260 lb/hr	Dual Atomizer Wet Scrubber

7.1.3 Applicability Provisions and Applicable Regulations

- a. The "affected large hospital medical infectious waste incinerator" for the purpose of these unit-specific conditions, is an emission unit for incineration of the medical waste generated by the on-site operations and not exceeding 1,450 lb/hr of the charging waste.
- b. The affected large HMIWI is subject to the emission limits established in 35 IAC Part 229 "Hospital/Medical/Infectious Waste Incinerators". All affected emission limits and requirements established by Part 229 are discussed further in this Section.

7.1.4 Non-Applicability of Regulations of Concern

The affected large HMIWI is not subject to 40 CFR 60.50c because construction of this HMIWI was commenced prior to June 20, 1996.

7.1.5 Operating Requirements and Work Practices

- a. Only general hospital waste, including medical/infectious waste and pathological waste, shall be charged to the incinerator at the rate not exceeding 1,450 lb/hr, based on measurement of the weight of each load or "charge" of waste introduced into the incinerator.
- b. The secondary combustion chamber of affected HMIWI shall be preheated to a minimum of 1500°F prior to introducing waste into the incinerator. This temperature shall be maintained until burnout of waste in the primary chamber is completed.

- c. The Permittee shall not operate affected HMIWI above any of the following maximum or below any of the following minimum operating parameters values established during the most current testing*:

Operating Parameters	Operating Parameters Values
Maximum Charge Rate	1450 lb/hr
Maximum Flue Gas Temperature	245°F
Minimum Secondary Chamber Temperature	1587°F
Minimum Scrubber Liquor Flow Rate	6.12 lb/hr
Minimum Amperage to Wet Scrubber	#1 - 55.4 amps #2 - 54.7 amps

* Stack test was conducted on August 13, 2003.

7.1.6 Operator Training and Qualification Requirements

The Permittee is subject to the following requirements:

- a. No HMIWI shall be operated unless a trained and qualified HMIWI operator, as specified in 35 IAC Part 229, is available on-site to operate or supervise the operation of the HMIWI.
- b. To become a trained and qualified operator, a person shall complete a training program that, at a minimum, meets the criteria specified further in this condition, pass the examination administered in accordance with condition described below and have either 6 months experience as an HMIWI operator or have completed 2 burn cycles under the observation of 2 trained and qualified HMIWI operators.
- c. An operator training program shall satisfy all of the following criteria:
 - i. Consist of at least 24 hours of training covering the following subjects:
 - A. Work safety procedures;
 - B. Pre-startup procedures;
 - C. Environmental concerns, including pathogen destruction and types of emissions;
 - D. Basic combustion principles, including combustion byproducts;
 - E. Instruction in the proper operation of the same type of incinerator that will be used by the operator, including proper startup, waste charging, and shutdown procedures;
 - F. Combustion controls and monitoring;

- G. Operation of air pollution control equipment and factors affecting performance;
 - H. Methods for monitoring pollutants, both by CEMS and by monitoring of HMIWI and air pollution control device operating parameters, and monitoring instrument calibration procedures;
 - I. Inspection and maintenance of an HMIWI, air pollution control equipment, and CEMS;
 - J. Corrective measures to remedy malfunctions and conditions that may lead to malfunction;
 - K. Characteristics of and proper handling procedures for bottom and fly ash;
 - L. Recordkeeping procedures; and
 - M. Applicable federal, state, and local regulations.
- ii. Administer an examination designed by the course instructor; and
 - iii. Provide reference materials covering all of the course topics specified above.
- d. Operator qualification is valid from the date on which the examination specified in Condition 7.1.6(c) (ii) is passed, or the completion of the experience requirements set forth in Condition 7.1.6(b), whichever is later.
 - e. In order for an operator that has been qualified in accordance with Condition 7.1.6(b) to maintain the necessary qualification status, the operator shall:
 - i. Complete and pass an annual review course of at least 4 hours in length that, at a minimum, covers the following subjects:
 - A. An update of applicable regulations;
 - B. Proper incinerator operation, including startup and shutdown procedures;
 - C. Proper incinerator inspection and maintenance;
 - D. Responses to malfunctions and conditions that may lead to malfunction; and

- E. A discussion of operating problems encountered by attendees.
- ii. If an operator fails to either take or to complete and pass the annual review course, the operator's qualification will lapse.
- iii. If the operator's qualification lapses for less than 3 years, qualification may be reinstated by taking and passing the annual review course, as provided under Condition 7.1.6(e) (1).
- iv. If there is a 3-year or greater lapse in an operator's qualification, then the operator shall take and pass an operator training course, as provided for under Condition 7.1.6(c), in order to reinstate the qualification [35 IAC 229. 170].

7.1.7 Waste Management Plan Requirements

- a. The owner or operator of a hospital subject to the requirements in this Part shall submit to the Illinois EPA, in accordance with 35 IAC 229.184(b), a waste management plan. Such plan shall outline technically and economically feasible policies and practices for reducing the amount and toxicity of hospital and medical/infectious waste incinerated at the hospital. The waste management plan shall include the following components:
 - i. The name and location of the facility;
 - ii. A written policy statement setting forth management support for waste management and implementation of the plan;
 - iii. A statement of goals for reducing the volume and toxicity of waste expressed numerically where feasible;
 - iv. Identification of the staff responsible for development and implementation of the plan, as well as a description of their roles and responsibilities;
 - v. A description of communication and education programs to make employees aware of the waste management program and their responsibilities;
 - vi. A summary of existing waste management policies and practices;
 - vii. Identification of technically and economically feasible waste management policies and practices to be implemented and, where

practical, a schedule for the implementation of the selected measures; and

- viii. Procedures for tracking implementation of the plan and progress toward achieving the goals.
- b. Prior to the development of the waste management plan, the hospital shall assess:
- i. Current waste management practices;
 - ii. All of the available data that it has collected on the types, quantities, and sources of its waste;
 - iii. Technical information on alternative waste management practices, such as the American Hospital Association publication entitled "An Ounce of Prevention: Waste Management Strategies for Health Care Facilities," incorporated by reference at 35 IAC 229.104(a); and
 - iv. The feasibility of implementing additional waste management policies and practices, taking into account such considerations as:
 - A. The effectiveness of existing policies and practices;
 - B. The costs of additional measures;
 - C. The potential effects on patient care and worker safety;
 - D. The environmental benefits and savings;
 - E. The recycling options available in the area; and
 - F. The availability of products or equipment needed to implement alternative measures.
- c. The following measures, at a minimum, shall be considered when evaluating alternative waste management practices and developing waste management policies and procedures:
- i. Segregating waste streams;
 - ii. Phasing out the use of products containing toxic materials;
 - iii. Reusing products and equipment;
 - iv. Reducing the use of packaging and disposable items;

- v. Collecting recyclable materials; and
 - vi. Improving inventory control, training and housekeeping practices.
- d. Any waste management plan that has been developed by a hospital subject to the requirements of this Part prior to May 15, 1999, may be incorporated into the waste management plan required by this condition, to the extent that such a plan is consistent with the requirements of this condition and 35 IAC 229.176.
 - e. The owner or operator of the affected hospital shall submit a waste management plan to the Illinois EPA at the same time site-specific operating parameters are reported, as specified in 35 IAC 229.184(b).
 - f. The waste management plan shall be updated every 5 years to coincide with the renewal of the facility's CAAPP permit.
 - g. The owner or operator of the affected HMIWI shall submit a waste management progress report to the Illinois EPA annually, along with the annual emissions report required by 35 IAC 201.302. The progress report shall include the following elements:
 - i. A description of progress made during the previous calendar year toward meeting the goals established in the plan;
 - ii. A summary of the waste management practices that were implemented; and
 - iii. Any amendments to the plan along with a brief explanation of the need for the amendments.
 - h. Upon written request, the Permittee shall make the waste management plan and annual progress reports available for public review during normal business hours [35 IAC 229.176].

7.1.8 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected large HMIWI is subject to the following:

- a. The emissions shall not exceed the following limits pursuant to 35 IAC 229.125(b):

Pollutant	Units (7% Oxygen, Dry Basis)	Emission Limits for Large HMIWI
PM	mg Per dscm (Grains Per dscf)	34 (0.015)
CO	ppmv	40

Pollutant	Units (7% Oxygen, Dry Basis)	Emission Limits for Large HMIWI
Dioxins/ Furans	Nanograms per dscm, Total Dioxins/Furans (Grains Per Billion dscf), or Nanograms per dscm TEQ (Grains Per Billion dscf)	125 (55) or 2.3 (1.0)
HCL	ppmv or Percent Reduction	100 or 93%
SO ₂	ppmv	55
NO _x	ppmv	250
Pb	mg per dscm (Grains Per Thousand dscf) or Percent Reduction	1.2 (0.52) or 70%
Cd	mg per dscm (Grains Per Thousand dscf) or Percent Reduction	0.16 (0.07) or 65%
Hg	mg per dscm (Grains Per Thousand dscf) or Percent Reduction	0.55 (0.24) or 85%

b. Operation of the affected HMIWI shall not exceed the following limits:

i. Emissions of HCL from the affected HMIWI shall not exceed the following limits:

HCL Emissions	
(lb/hr)	(T/yr)
21.8	21.18

ii. These limits establish potential HCL emissions from affected HMIWI based on the maximum design capacity and HCL standard emission factor of 33.5 lb/ton of charging waste.

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 (running 12 month total).

7.1.9 Testing Requirements

The Permittee shall fulfill the following testing requirements established in 35 IAC 229.140, 229.142, 229.144, 229.146, and 229.148 for all performance tests:

a. Initial performance testing of the affected large HMIWI shall be performed by using the following USEPA test Methods, as established by 35 IAC 229.104(d):

USEPA Methods: 1, 2, 3, 3a, 5, 9, 10, 10B, 23, 26, 26A, and 29.

- b. When conducting a performance test for an HMIWI, the owner or operator shall:
 - i. Test an HMIWI at the waste charging rate specified in its permit or, if no permit has been issued, in its permit application;
 - ii. Burn representative waste streams that are typically combusted in that HMIWI;
 - iii. Conduct testing during periods that are inclusive of maximum emissions of the HMIWI and not during periods of startup, malfunction, or shutdown; and
 - iv. Weigh the amount of waste combusted for each run of the performance test before charging the waste to an HMIWI to within 1.0 percent accuracy.

- c. The owner or operator of an HMIWI shall submit a test plan to the Illinois EPA at least 45 days before conducting a performance test. Performance test plans shall include the following:
 - i. The proposed date of the performance test;
 - ii. A roster of testing personnel, which provides information concerning their testing experience;
 - iii. A description of the specific conditions under which the test will be performed, including, at a minimum:
 - A. Why these conditions will be representative of the operation and include maximum emissions of the HMIWI; and
 - B. The means by which the operating parameter values will be determined;
 - iv. A technical description of the HMIWI being tested;
 - v. The parameters and pollutants that will be monitored during the performance test; and
 - vi. The quality assurance procedures that will be followed during the performance test.

- d. The owner or operator of an HMIWI shall give the Illinois EPA 5 days written notice prior to actually conducting any performance testing required by the provisions of 35 IAC Part 229.

- e. Testing conducted pursuant to 35 IAC Part 229 shall be according to the procedures and test methods specified for the measurement of each pollutant in Appendix C of 35 IAC Part 229.
- f. Any use of a bypass stack during a performance test shall invalidate the results of that run.
- g. The owner or operator of an HMIWI may conduct a repeat performance test at any time to establish new site specific operating values for the HMIWI. Such new site specific operating parameter values may not be relied upon until approved by the Illinois EPA as a permit condition.
- h. Following the date on which the initial performance test is completed, as required by 35 IAC 229.142, the Permittee shall conduct an annual opacity test by September 15 of each year.
- i. The Illinois EPA or the USEPA may request that the owner or operator of an HMIWI conduct a new performance test at any time.
- j. Following the date on which the initial performance test is completed, as required by this permit and 35 IAC 229.142, the Permittee shall conduct an annual performance test, by September 15 of each year to determine compliance with the PM, CO and HCl emission limits specified in 35 IAC 229.125(b), using the applicable test procedures and methods specified in 35 IAC 229.140.
 - i. If all 3 annual performance tests over a 3-year period indicate compliance with the emission limits for PM, CO, or HCl specified in 35 IAC 229.125(b), the owner or operator of an HMIWI may forego a performance test for that pollutant during the next 2 years. If the next performance test conducted every third year indicates compliance with the emission limits for PM, CO, or HCl specified in 35 IAC 229.125(b), the owner or operator of an HMIWI may forego a performance test for that pollutant for an additional 2 years from the date of the previous performance test.
 - ii. If any performance test indicates noncompliance with the respective emission limit, the owner or operator of an HMIWI shall conduct a performance test for that pollutant annually until all annual performance tests over a 3-year period indicate compliance with the respective emission limits.

7.1.10 Monitoring Requirements

- a. Once the initial performance test required by this permit and 35 IAC 229.142 has been performed, and the site-specific minimum and maximum operating parameter values have been established, the owner or operator of the affected large HMIWI shall continuously monitor those parameters:

Operating Parameters	Minimum Frequency		Control System
	Data Measurement	Data Recording	Wet Scrubber
Maximum ¹ Charge Rate	Continuous	Once Per Hour	X
Maximum Flue Gas Temperature	Continuous	Once Per Minute	X
Minimum Secondary Chamber Temperature	Continuous	Once Per Minute	X
Minimum Pressure Drop Across The Wet Scrubber Or Minimum Horsepower Or Amperage To Wet Scrubber	Continuous	Once Per Minute	X
Minimum Scrubber Liquor Flow Rate	Continuous	Once Per Minute	X
Minimum Scrubber Liquor Ph	Continuous	Once Per Minute	X

¹ For batch HMIWIs, record the charge per batch.

- b. The owner or operator of the affected large HMIWI shall comply with the following monitoring requirements:
- i. Install, calibrate according to manufacturer's specifications, maintain, and operate devices or establish methods for monitoring the applicable maximum and minimum operating parameters specified in Condition 7.1.9(1) and Appendix B of 35 IAC Part 229 such that these devices or methods measure and record values for these operating parameters at the frequencies indicated in Condition 7.1.9(1) of this permit at all times, except during periods of startup and shutdown;

- ii. Install, calibrate according to manufacturer's specifications, maintain, and operate a device or establish a method for identifying the use of the bypass stack, including date, time, and duration of use; and
- iii. Record monitoring data at all times during HMIWI operation, except during the periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be recorded for 75 percent of the operating hours per day and for 90 percent of the operating days per calendar quarter that an HMIWI is combusting hospital waste or medical/infectious waste [35 IAC 229.166].

7.1.11 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected HMIWI to demonstrate compliance with Condition 5.5.1 and Section 7 of this permit, pursuant to Section 39.5(7)(b) of the Act:

- a. The owner or operator of an HMIWI subject to the emission limits under 35 IAC Part 229 shall maintain records of the following information:
 - i. The calendar date of each record;
 - ii. The following data, where applicable:
 - A. Concentrations of all applicable pollutants listed in 35 IAC 229.125(b) and any measurements of opacity as required under 35 IAC 229.125(c);
 - B. HMIWI charge dates, times and weights, and hourly charge rates;
 - C. The amount and type of dioxin/furan sorbent used during each hour of operation;
 - D. The amount and type of Hg sorbent used during each hour of operation;
 - E. The amount and type of HCl sorbent used during each hour of operation;
 - F. The secondary chamber temperatures recorded during each minute of operation;
 - G. The liquor flow rate to the wet scrubber inlet during each minute of operation;

- H. The horsepower or amperage to the wet scrubber during each minute of operation;
 - I. Any pressure drop across the wet scrubber system during each minute of operation;
 - J. The temperature at the outlet from the wet scrubber during each minute of operation;
 - K. The pH at the inlet to the wet scrubber during each minute of operation; and
 - L. Identification of any use of the bypass stack, including dates, times, and the duration of such use.
- iii. Identification of any calendar days for which data on emission rates or operating parameters specified under Condition 7.1.5(c) have not been obtained, with an identification of the emission rates or operating parameters not measured, reasons for not obtaining data, and a description of the corrective actions taken;
 - iv. Identification of any malfunctions, including the calendar date, the time and duration, and a description of the malfunction and of the corrective action taken to remedy it;
 - v. Identification of calendar days for which data on emission rates or operating parameters specified under Condition 7.1.5(c) exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, and a description of the corrective actions taken;
 - vi. The results of the initial, annual, and any other performance tests;
 - vii. Records of calibration of any monitoring devices as required under Condition 7.1.10(b); and
 - viii. Identification of the names of all HMIWI operators who have met the criteria for qualification under 35 IAC 229.170, including:
 - A. Documentation of training and the dates of the training; and
 - B. The date of the initial review and all subsequent annual reviews of the information specified in 35 IAC 229.172(a), as required by 35 IAC 229.172(b).

- b. All records required under 35 IAC Part 229 shall be maintained on site for a period of 5 years, in either paper copy or electronic format, unless an alternative format has been approved by the Illinois EPA.
- c. All records required to be maintained pursuant to 35 IAC Part 229 shall be made available to the Illinois EPA upon request.

7.1.12 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of noncompliance of affected HMIWI with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. The facility manager and the responsible official for the affected source shall certify each report required under 35 IAC Part 229.
- b. The owner or operator of an HMIWI shall submit to the Illinois EPA the results of any performance test conducted on the HMIWI within 60 days after conducting the performance test. The information submitted with the initial performance test required by this permit shall include:
 - i. The test data and values for the site-specific operating parameters established for an HMIWI pursuant to 35 IAC 229.142; and
 - ii. A copy of the waste management plan required under 35 IAC Part 229, Subpart K.
- c. The owner or operator of affected HMIWIs shall submit the information specified further in this condition to the Illinois EPA by September 15, 2002 and by September 15 of each year thereafter. After issuance of the CAAPP permit, the Permittee shall submit these reports semi-annually. The annual report shall include the following information:
 - i. The values for site-specific operating parameters established pursuant to 35 IAC 229.142;
 - ii. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter, recorded for the calendar year being reported and for the calendar year preceding the year being reported;

- iii. Any information recorded pursuant to 35 IAC 229.182(a) (3) through (5) for the calendar year being reported and for the calendar year preceding the year being reported;
 - iv. If no exceedances or malfunctions were recorded under 35 IAC 229.182(a) (3) through (a) (5) for the calendar year being reported, a statement that no exceedances occurred during the reporting period; and
 - v. Any use of the bypass stack, the duration of use, the reason for malfunction, and the corrective actions taken.
- d. The semiannual reports must be submitted within 60 days following the end of the reporting period. The first semiannual reporting period ends on March 15 of each year and the second semiannual reporting period ends on September 15 of each year.

7.1.13 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.1.14 Compliance Procedures

- a. Compliance with emission limits established in this permit for affected HMIWI is assumed to be achieved by compliance with operating, control, and testing requirements and procedures established pursuant to 35 IAC Part 229. Monthly and annual emissions shall be calculated based on the most recent stack test results.
- b. Monthly and annual emissions shall be derived from the most recent stack test results. Currently, the following data shall be used, as established by stack test results conducted on November 11-15 2001:

Parameter	Average, based on the three test runs
PM, gr/dscf	0.008
SO ₂ , ppm	0.3
NO _x , ppm	98.8
CO, ppm	33.2
HCl, ppm	2.0
Pb, mg/dscm	0.185
Cd, mg/dscm	0.018
Hg, mg/dscm	0.026
Total Dioxins/Furans, ng/dscm	58.18

7.2 Unit 2: Boilers

7.2.1 Description

Natural gas-fired boilers used to produce heat and steam at the source.

7.2.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Equipment	Description	Emission Control Equipment
Unit 2	Boilers	<p>Five Natural Gas-Fired Boilers</p> <p>Maximum Heat Input for Each Boiler:</p> <p>#1: 49.3 mmBtu/hr #2 & #4: 65.291 mmBtu/hr #3: 89.59 mmBtu/hr #5: 25.1 mmBtu/hr</p>	None

7.2.3 Applicability Provisions and Applicable Regulations

- a. An "affected boiler" for the purpose of these unit specific conditions is a natural gas-fired boiler for processing heat and steam for the hospital needs.
- b. No person shall cause or allow the emission of carbon monoxide into the atmosphere from any fuel combustion emission source with actual heat input greater than 2.9 MW (10 mmBtu/hr) to exceed 200 ppm, corrected 50 percent excess air [35 IAC 216.121].
- c. Affected Boilers #2, #3, and #4 are subject to the recordkeeping requirements of 40 CFR 60 Subpart Dc.

7.2.4 Non-Applicability of Regulations of Concern

- a. Each affected boiler is not subject to 35 IAC 217.141, Emissions of Nitrogen Oxides From Existing Fuel Combustion Emission Sources in Major Metropolitan Areas, because the actual heat input of each boiler is less than 73.2 MW (250 mmBtu/hr).
- b. Pursuant to 35 IAC 218.303, any fuel combustion emission unit is not subject to 35 IAC Part 218, Subpart G: Use of Organic Material.
- c. Affected Boilers #1 and #5 are not subject to the Standards of Performance for Small-Industrial Commercial-Institutional Steam Generating Units, 40 CFR 60 Subpart Dc, because these boilers had been constructed prior to June 9, 1989.

7.2.5 Operational and Production Limits and Work Practices

Natural gas shall be the only fuel used for each affected boiler.

7.2.6 Emission Limitations:

Emissions and operation of the affected Boilers #2, #3, and #4 shall not exceed the following limits:

a. Natural Gas Usage (Total, Boilers #2, #3, and #4)

113,34 mmscf/mo and 1,133.43 mmscf/yr.

b. Emissions (Total, Boilers #2, #3, and #4)

NO _x		PM		VOM	
(T/mo)	(T/yr)	(T/mo)	(T/yr)	(T/mo)	(T/yr)
5.66	56.66	0.43	4.3	0.31	3.1

The above limitations are being established in this permit pursuant to Title I of the CAA, specifically 35 IAC Part 203 and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits contain revisions to the previously issued construction permits 91110015 and 92080028. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this permit, consistent with the information provided in the CAAPP application. Specifically, natural gas usage limits are established [T1R].

7.2.7 Testing Requirements

None

7.2.8 Monitoring Requirements

None

7.2.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected boilers to demonstrate compliance with conditions of this permit, pursuant to Section 39.5(7)(b) of the Act:

a. Total natural gas consumption (mmscf/mo and mmscf/yr) for all affected boilers.

b. Natural gas consumption (mmscf/mo and mmscf/yr) for Boilers #2, #3, and #4.

- c. Annual emissions of regulated air pollutants as calculated in accordance with compliance procedures in Condition 7.2.12.

7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with the emission limitations as follows pursuant to Section 39.5(7)(f)(ii) of the Act:

If there is an exceedance of the emission limitations 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.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.2.12 Compliance Procedures

Compliance with the emission limits established in Conditions 5.5.1 and 7.2.6 of this permit shall be based on the recordkeeping requirements of Condition 7.2.9 and the emission factors and formulas listed below:

Pollutant	Emission Factor (lb/mmscf)
PM	7.6
NO _x	100.0
VOM	5.5

These are the emission factors for uncontrolled natural gas combustion in small boilers (< 100 mmBtu/hr), Tables 1.4-1 and 1.4-2, AP-42, March 1998.

Emissions (lb) = Natural Gas Consumed Multiplied by the Appropriate Emission Factor.

7.3 Unit 3: Gasoline Storage Tank

7.3.1 Description

Gasoline storage tank is associated with gasoline non-retail dispensing operations at this location.

7.3.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Equipment	Description/Date of Construction	Emission Control Equipment
Unit 3	Gasoline Storage Tank	Design Capacity - 2,500 Gallons	Submerged Loading Pipe

7.3.3 Applicability Provisions and Applicable Regulations

- a. An "affected gasoline storage tank" for the purpose of these unit specific conditions is used for non-retail dispensing operations at this location.
- b. The affected gasoline storage tank is subject to 35 IAC 218.122(b) and 218.583(a). These requirements are discussed further in Condition 7.3.5.

7.3.4 Non-Applicability of Regulations of Concern

The affected gasoline storage tank is exempted from applicability of 35 IAC 218.586 because the average monthly volume of dispensing fuel is less than 10,000 gallons [35 IAC 218.586(b)].

7.3.5 Operational and Production Limits and Work Practices

- a. No person shall cause or allow the loading of any organic material in any stationary tank having a storage capacity of greater than 946 l (250 gal), unless such tank is equipped with a permanent submerged loading pipe [35 IAC 218.122(b)].
- b. No person shall cause or allow the transfer of gasoline from any delivery vessel into the stationary storage tank at a gasoline dispensing operations unless the tank is equipped with a submerged loading pipe [35 IAC 218.583(a) (1)].
- c. The pressure/vacuum relief valve shall be set to resist a pressure of at least 3.5 inches water column and to resist a vacuum of no less than 6.0 inches water column [35 IAC 218.583(a) (3) (A)].

7.3.6 Emission Limitations

In addition to Condition 5.5.1, the affected gasoline storage tank is subject to the following:

None

7.3.7 Testing Requirements

None

7.3.8 Monitoring Requirements

None

7.3.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected gasoline storage tank to demonstrate compliance with conditions of this permit, pursuant to Section 39.5(7)(b) of the Act:

- a. Monthly and annual gasoline throughput (gallons/month and gallons/year).
- b. Monthly and annual VOM emissions calculated based on the compliance procedure in Condition 7.3.12.

7.3.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with the emission limitations as follows pursuant to Section 39.5(7)(f)(ii) of the Act:

None

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.3.12 Compliance Procedures

To determine compliance with Condition 5.5.1, VOM emissions from the storage tank shall be calculated based in the current version of the TANK program.

7.4 Unit 4: Ethylene Oxide Sterilizers

7.4.1 Description

Sterilizers are used for sterilization of medical instruments.

7.4.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Equipment	Description/Date of Construction	Emission Control Equipment
Unit 4	Ethylene Oxide Sterilizers (4 Units)	Sterilization of Hospital Medical Instruments	Two Abator Systems

7.4.3 Applicability Provisions and Applicable Regulations

An "affected ethylene oxide sterilizer" is used for sterilization of hospital medical instruments.

7.4.4 Non-Applicability of Regulations of Concern

The affected sterilizer at this source is not subject to requirements of the following:

- a. The ethylene oxide sterilizer at this source is not subject to requirements of 40 CFR Part 63, Subpart Q "National Emission Standards for Hazardous Air Pollutants for Ethylene Oxide Commercial Sterilization and Fumigation Operations", because pursuant to 40 CFR 63.360(e) all hospitals, doctors offices, and clinics are exempted from the requirements of these rules.
- b. The ethylene oxide sterilizer at this source is not subject to requirements of 35 IAC Part 218, Subpart G "Use of Organic Material", because pursuant to 35 IAC 211.7150, chemical compounds used at this unit are not photochemically reactive.

7.4.5 Operational and Production Limits and Work Practices

None

7.4.6 Emission Limitations

In addition to Condition 5.5.1, the affected sterilizer is subject to the following:

Emissions and operation of all four sterilizers controlled by two Abator Systems shall not exceed the following limits:

- a. Ethylene oxide used: 1.18 lb/hr and 5.17 ton/yr.
- b. HAP emissions shall not exceed 0.01 lb/hr and 0.04 ton/yr.

c. This limits are established in the construction permit 96030259 and based on the 8,760 hours of operation per year and 99.9% destruction efficiency of control systems.

7.4.7 Testing Requirements

None

7.4.8 Monitoring Requirements

None

7.4.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected utility units to demonstrate compliance with conditions of this permit, pursuant to Section 39.5(7)(b) of the Act:

Total amount of the ethylene oxide used and emitted.

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with the emission limitations as follows pursuant to Section 39.5(7)(f)(ii) of the Act:

If there is an exceedance of the emission limitations 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.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

To determine HAP emissions from the affected sterilizer the following equation shall be used:

HAP Emissions = Ethylene Oxide Consumption

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after July 20, 2000 (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

8.3 Emissions Trading Programs

As of the date of issuance of this permit, there are no such economic incentive, marketable permit or emission trading programs that have been approved by USEPA.

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12)(a)(i) of the Act]:

- a. The changes do not violate applicable requirements;
- b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;

- c. The changes do not constitute a modification under Title I of the CAA;
- d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and
- e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:
 - i. Describe the physical or operational change;
 - ii. Identify the schedule for implementing the physical or operational change;
 - iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
 - iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
 - v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

A report summarizing required monitoring as specified in the conditions of this permit shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

<u>Monitoring Period</u>	<u>Report Due Date</u>
January - June	September 1

July - December

March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;
- e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;

- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

- a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:
 - i. Illinois EPA - Air Compliance Section

Illinois Environmental Protection Agency
Bureau of Air
Compliance Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276
 - ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016
 - iii. Illinois EPA - Air Permit Section

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506
 - iv. USEPA Region 5 - Air Branch

USEPA (AR - 17J)
Air & Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604
- b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this

permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].

9.1.2 In particular, this permit does not alter or affect the following:

- a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
- b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
- d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(p)(ii) of the Act]:

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- d. Sample or monitor any substances or parameters at any location:

- i. At reasonable times, for the purposes of assuring permit compliance; or
 - ii. As otherwise authorized by the CAA, or the Act.
- e. Obtain and remove samples of any discharge or emission of pollutants; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source.

9.4 Obligation to Comply With Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].
- b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.

- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:
 - i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency. Normally, an act of God such as lightning or flood is considered an emergency;
 - ii. The permitted source was at the time being properly operated;
 - iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
 - iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the

emission limitations, standards, or regulations in this permit.

- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and
- d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7) (o) (v) of the Act].

9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7) (i) of the Act].

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5) (l), (n), and (o) of the Act].

10.0 ATTACHMENTS

10.1 Attachment 1 - Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

AB:jar