



State of Ohio Environmental Protection Agency

Street Address:

Mailing Address:

TELE: (614) 644-3020 FAX: (614) 644-2329

05/05/98

CERTIFIED MAIL

02-50-11-0158

RE: Final Chapter 3745-35 Permit To Operate

St. Elizabeth Health Center, HM Health Services
Thomas N. Romeyn
1044 Belmont Avenue
P.O. Box 1790
Youngstown, OH 44501-1790

Dear Thomas N. Romeyn:

The enclosed Permit(s) to Operate allow you to operate the described emissions unit(s) in the manner indicated in the Permit(s). Because each permit contains several terms and conditions, I urge you to read them carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street
Room 300
Columbus, Ohio 43215

If you have any questions, please contact the Northeast District Office at (216) 425-9171

Very truly yours,

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

cc: Northeast District Office
Jim Orlemann, DAPC Engineering

Becky Castle, DAPC PMU



PERMIT TO OPERATE AN EMISSIONS UNIT

Effective Date: 05/05/98

Facility ID: 02-50-11-0158

Expiration Date: 05/05/03

FINAL ISSUE

This document constitutes issuance for:

St. Elizabeth Health Center, HM Health Services
1044 Belmont Avenue
P.O. Box 1790
Youngstown, OH 44501-1790

of a permit to operate for:

N002 (Incinerator)
multiple chamber incinerator for hospital waste with wet scrubbing system

PART I General Terms & Conditions

1 Compliance Requirements

The above-described emissions unit is and shall remain in full compliance with all applicable State and federal laws and regulations and the terms and conditions of this permit.

2. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

3. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

- b Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

4. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of three years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

5. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State and federal air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

6. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of this emissions unit(s) that is (are) served by such control system(s).

7. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permittee. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Permit Renewal

Approximately six months prior to the expiration date of this permit, a notice regarding the renewal of this permit will be sent to the permittee's designated facility contact. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency. It is the permittee's responsibility to renew this permit even if no notice of its expiration is received.

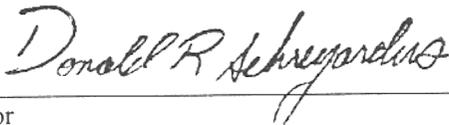
The following Ohio EPA District Office or local air agency has jurisdiction in the area in which the facility is located:

Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087
(216) 425-9171

You will be contacted approximately six months prior to expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate DO or LAA.

10. The permittee is also subject to the attached special terms and conditions.

OHIO ENVIRONMENTAL PROTECTION AGENCY



Director

Part II: Special Terms and Conditions

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Multiple Chamber Incinerator for Hospital Waste with Venturi Scrubbing System	OAC Chapter 3745-75 See F.2.	<ul style="list-style-type: none"> a. 0.10 lb particulate emissions/100 lbs waste charged b. 4.0 lbs/hr hydrogen chloride or 90% minimum control efficiency, by weight c. 100 ppm by volume, on a dry basis, carbon monoxide, adjusted to 7% oxygen as an hourly average d. 0.0042 lb/hr arsenic and compounds e. 0.0076 lb/hr beryllium and compounds f. 0.010 lb/hr cadmium and compounds g. 0.0015 lb/hr chromium and compounds h. 0.068 lb/hr lead and compounds i. 0.011 lb/hr mercury and compounds j. 0.0076 lb/hr nickel and compounds k. Visible emissions shall not exceed 5% opacity except for 6-minutes in any continuous 60-minute period during which the opacity shall not exceed 10%. Opacity shall be determined according to US EPA Reference Method Nine.

2. Additional Terms and Conditions

- 2.a All infectious waste shall be incinerated in a controlled air, multi-chamber incinerator, or equivalent technology as approved by the Director, which provides complete combustion of waste, excluding metallic items, to carbonized or mineralized ash. Any ash that does not meet this criterion shall be re-incinerated.
- 2.b This incinerator shall be equipped with an automatic feeder which is designed and operated so that wastes cannot be charged if the temperature of the gas exiting the secondary combustion chamber is less than 1800 degrees Fahrenheit.

2

Facility Name: St. Elizabeth Health Center, HM Health Service

5

Facility ID: 02-50-11-0158

Emissions Unit: Incinerator (N002)

2. Additional Terms and Conditions (continued)

- 2.c The stack(s) for this incinerator shall be designed to minimize the impact of the emissions on employees, residents, patients, visitors, and nearby residences. The design shall meet good engineering practices so as not to cause concentrations of any air contaminant at any air intake for heating and cooling of any building or at operable windows or doors.
- 2.d If this incinerator is mechanically-fed, it must be equipped with an air lock system to prevent opening the incinerator to the room environment. The volume of the loading system shall be designed so as to prevent the overcharging of the unit to ensure complete combustion of the waste.
- 2.e This incinerator shall be equipped with an air pollution control device designed to reduce hydrogen chloride emissions and provide for continuous compliance with the hydrogen chloride emission limits when the unit is in operation.

B. Operational Restrictions

- 1. The waste material feed rate to this incinerator shall be limited to 1700 pounds per hour.
- 2. This incinerator shall not be operated more than 12 hours per day nor more than 60 hours per week.
- 3. The primary combustion chamber for this incinerator shall be maintained so that the exit gas is at a minimum temperature of 1400 degrees Fahrenheit. The secondary combustion chamber for this incinerator shall be operated so that the exit gas temperature is at a minimum of 1800 degrees Fahrenheit.
- 4. The secondary combustion chamber of this incinerator shall allow for a 2-second retention time at 1800 degrees Fahrenheit.
- 5. Infectious waste shall not be loaded into the primary combustion chamber of this incinerator until the exit gas temperature has reached 1400 degrees Fahrenheit. Auxiliary heat input capacity, excluding any waste material heating value, shall be provided to independently maintain the secondary chamber at a temperature of 1800 degrees Fahrenheit until all waste material is completely combusted.
- 6. This incinerator, including all associated equipment and grounds, shall be designed, operated and maintained to prevent the emission of objectionable odors.
- 7. The permittee shall not intentionally dispose of the following items by burning in the incinerator:
 - a. visible globules of mercury;
 - b. nickel-cadmium batteries; and
 - c. switches, thermometers, batteries and other devices containing mercury.
- 8. The permittee shall not receive or incinerate any hazardous waste materials as defined in 40 CFR Part 261 Subpart D.
- 9. Under no circumstances shall radiological or radioactive waste be charged into this unit.
- 10. The permittee shall have this incinerator inspected monthly using preventive maintenance procedures recommended by the equipment manufacturer. Each inspection shall include a written report identifying any needed repairs to the unit. If repairs are needed, the incinerator shall not be operated if the operation would result in any exceedance of the emission limits detailed in this permit. These repairs shall be completed within 30 days of the inspection. If a time period longer than 30 days is needed to complete the repairs, the appropriate Ohio EPA District Office or local air agency shall be notified in writing. This notice shall list the repairs needed and the reason(s) the repairs could not be accomplished within the required time period. All inspection and repair reports shall be kept by the permittee for a period of 5 years and shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.
- 11. This incinerator shall be operated only by properly trained personnel. A minimum of 40 hours of incinerator operation training shall be provided to each operator before he or she is allowed to operate this incinerator. This may include, for each operator, the successful completion of the training course for the operation and maintenance of hospital medical waste incinerators developed by the Control Technology Center, U.S. EPA, courses or instructions provided by incinerator manufacturers, professional engineering organizations, colleges or universities, or Ohio EPA. A copy of all the training records for each operator shall be maintained on file for a period of 5 years and shall be immediately available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the primary combustion exhaust gas temperature, the secondary combustion exhaust gas temperature, and the bypass stack temperature when the incinerator is in operation. Units shall be in degrees Fahrenheit. Accuracy for each thermocouple and recorder shall be guaranteed by the manufacturer to be within 0.75 percent of the temperature being measured or 2.5 degrees Fahrenheit, whichever is greater. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall operate and maintain equipment to continuously monitor and record the carbon monoxide emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60, section 60.13 and Appendix B, Performance Specification 4 and OAC rule 3745-75-04. The permittee shall maintain and operate the carbon monoxide continuous emissions monitoring system in accordance with 40 CFR Part 60, Appendix F. Any new continuous emissions monitoring system for carbon monoxide shall be designed so that the requirements in 40 CFR Part 60, Appendix F can be achieved.
3. The carbon monoxide continuous emissions monitoring system shall be equipped with an alarm which will indicate whenever concentrations exceed 150 parts per million as an instantaneous measurement.
4. The permittee shall document all instances of carbon monoxide values in excess of the limitation specified in the terms and conditions of this permit.
5. The certified continuous emissions monitoring system for carbon monoxide shall be the means by which compliance with OAC rule 3745-75-02(E) is determined.
6. The permittee shall operate and maintain equipment to continuously monitor the radioactivity of all waste prior to combustion. This monitor shall be equipped with an alarm which sounds a warning when radioactive waste is present. For purposes of this permit, radioactive waste shall be defined as any waste which measures above ambient background levels of radiation. All radioactive infectious waste shall be managed in accordance with the applicable rules of the Ohio Department of Health and the regulations of the United States Nuclear Regulator Commission.
7. A scale (accurate to within 1 pound) shall be installed near this incinerator to weigh all of the material charged to the unit. A written log shall be kept that records the amount of material charged to this unit on a pounds per hour basis. The log shall also contain total daily hours of operation. These records shall be maintained for a period of 5 years and be available for inspection by the Ohio EPA or its authorized representatives at any reasonable time.
8. A logbook shall be maintained for each continuous emissions monitoring system installed on this incinerator to document all activities involving the monitoring systems. Appropriate records should include, as a minimum, preventive maintenance, quality assurance and corrective action activities. The logbook shall be kept on file for a period of 5 years and shall be made available for inspection by the Director or the Director's authorized representatives at any reasonable time.

D. Reporting Requirements

1. Reporting Requirements for Operating Hour Excursions

The permittee shall submit deviation (excursion) reports which provide the following information for each period during which daily or weekly hours of operation exceed the permitted allowables:

- a. the date or week of the excursion;
- b. the actual hours of operation during the excursion;
- c. the cause(s) for the excursion; and
- d. the corrective action which has been or will be taken to prevent similar excursions in the future.

This report shall be sent to the appropriate Ohio EPA District Office within 45 days of the excursion.

D. Reporting Requirements (continued)

2. Reporting Requirements for Charging Limit Excursions

The permittee shall submit deviation (excursion) reports which provide the following information for each period during which the charging rate exceeds the permitted allowable:

- a. the date of the excursion;
- b. the time interval over which the excursion occurred;
- c. the cause(s) for the excursion; and
- d. the corrective action which has been or will be taken to prevent similar excursions in the future.

This report shall be sent to the appropriate Ohio EPA District Office within 45 days of the excursion.

3. Reporting Requirements for Temperature Excursions

The permittee shall submit deviation (excursion) reports which provide the following information for each period during which the primary or secondary combustion chamber exhaust gas temperatures fall below the applicable limitations:

- a. the date of the excursion;
- b. the time interval over which the excursion occurred;
- c. the temperature values during the excursion;
- d. the cause(s) for the excursion; and
- e. the corrective action which has been or will be taken to prevent similar excursions in the future.

This report shall be sent to the appropriate Ohio EPA District Office within 45 days of the excursion.

4. Reporting Requirements for the Amount of Waste Incinerated

The permittee shall submit annual reports which provide the following information for the previous calendar year:

- a. the total amount of infectious waste incinerated, in tons; and
- b. an identification of all hours of operation during which the charge rate exceeded the incinerator's design capacity, including the actual charge rates for all such hours of operation.

These reports shall be submitted by January 31 of each year.

5. Reporting Requirements for Carbon Monoxide CEM Data

Pursuant to 40 CFR Part 60, section 60.7 and 60.13(h), 40 CFR Part 60, Appendix F and OAC rule 3745-75-05, the permittee shall also submit quarterly reports which document all instances of carbon monoxide values in excess of the limitations specified in the terms and conditions of this permit. The permittee shall submit data assessment reports in accordance with 40 CFR Part 60, Appendix F. These quarterly excess emissions reports and data assessment reports shall be submitted by January 30, April 30, July 30 and October 30 of each year and shall address the data obtained during the previous calendar quarters.

6. Reporting Requirements for Emission Test Results

A comprehensive written report on the results of any emission test(s) shall be submitted within 30 days following completion of the test(s).

E. Testing Requirements

1. The permittee shall conduct annual performance tests to demonstrate compliance with the allowable mass emission rates or control efficiency rate as specified in OAC rule 3745-75- 02(A) through (F), as applicable, for particulates, hydrogen chloride, carbon monoxide, arsenic, beryllium, cadmium, chromium, lead, mercury, and nickel. The emissions test(s) shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-75-06; 40 CFR Part 60, Appendix A, Methods 1-5, 10, 26; 40 CFR Part 266, Appendix IX, section 3 (will be 40 CFR Part 60, Method 29); and 40 CFR Part 61, Appendix B, Method 101A. The test(s) shall be conducted under maximum charging rates unless otherwise specified or approved by the Ohio EPA.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office shall be permitted to witness the test(s), examine the testing equipment and acquire data and information regarding the emissions unit operating parameters.

F. Miscellaneous Requirements

1. In accordance with the provisions of OAC Rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A - F.
2. The following terms and conditions shall supersede all the air pollution control requirements for this emissions unit contained in permit to install number 02-2480, as issued on May 28, 1986: A - E.