Facility ID: 1318452983 Issuance type: Final State Permit To Operate

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In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

   (a) None.

2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

   (a) None.

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
Infectious waste incinerator rated at 235 pounds per hour. The controlled air multi-chamber incinerator is equipped with an enclosed charging system and primary and secondary temperature recorders.	OAC rule 3745-75-02	0.10 lb particulate emissions/100 lbs waste charged 4.0 lbs/hr HCl or 90% minimum control efficiency, by weight 100 ppm by volume, on a dry basis, carbon monoxide, adjusted to 7% oxygen as an hourly average 0.0042 lb/hr arsenic and compounds 0.0076 lb/hr beryllium and compounds 0.010 lb/hr cadmium and compounds 0.0015 lb/hr chromium and compounds 0.068 lb/hr lead and compounds 0.011 lb/hr mercury and compounds 0.0076 lb/hr nickel and compounds 5% opacity, as a 6-minute average, except for a 1-minute period in any continuous 60-minute period during which the opacity shall not exceed 10%, as a 6-minute average (OAC 3745-17-07(A) is less stringent) 20% opacity, as a six-minute average, except as provided by rule
	OAC 3745-17-07(A)	

2. **Additional Terms and Conditions**

   (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 the waste, excluding metallic items, to carbonized or mineralized ash. Any ash that does not meet this criterion shall be reincinerated.
   This batch incinerator, as defined in OAC rule 3745-75-02(F), shall incorporate a lockout system which will prevent the ignition of waste until the exit gas temperature of the secondary combustion chamber reaches 1800 degrees Fahrenheit and which will prevent recharging until the combustion and burn-down cycles are complete.
   The stack(s) for this batch 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 excessive concentrations of any air contaminant at any air intake for heating and cooling of any building or at operable windows or doors.

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.

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 primary combustion chamber for this incinerator shall be maintained so that the exit gas is at a minimum temperature of 1200 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.

2. The secondary combustion chamber of this incinerator shall allow for a 1-second retention time at 1800 degrees Fahrenheit, in accordance with OAC rule 3745-75-03(D).

3. This incinerator, including all associated equipment and grounds, shall be designed, operated and maintained to prevent the emission of objectionable odors.

4. 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.

5. The permittee shall have this incinerator inspected monthly by qualified maintenance personnel 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.

6. 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, and every five years thereafter. 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 (if applicable) when the incinerator is in operation. Units shall be in degrees Fahrenheit. Accuracy for each thermocouple, monitor and recorder shall be guaranteed by the manufacturer to be within plus or minus 0.75 percent of the temperature being measured or plus or minus 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. Radioactive waste shall not be charged to this incinerator. 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 Regulatory Commission.

3. A scale (accurate to within one pound) shall be installed near this incinerator to weigh all of the material charged to the unit. A written log shall be kept to record the amount of material charged to this unit on a pounds per hour basis. Alternative arrangements may be approved by the Director provided they can be shown to be of equivalent effectiveness as a method of regulating flow into the incinerator and generating a permanent record of charging rates.

4. 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 Ohio EPA or its authorized representatives at any reasonable time.

D. **Reporting Requirements**

1. 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.

2. 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.

3. 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. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
Emission Limitation:

5% opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03 (B)(1) using the methods and procedures specified in USEPA Reference Method 9.
Emission Limitation

0.10 lb particulate emissions/100 lbs waste charged

4.0 lbs/hr hydrogen chloride or 90% minimum control efficiency, by weight

100 ppm by volume, on a dry basis, carbon monoxide, adjusted to 7% oxygen as an hourly average

0.0042 lb/hr arsenic and compounds

0.0076 lb/hr beryllium and compounds

0.010 lb/hr cadmium and compounds

0.0015 lb/hr chromium and compounds

0.068 lb/hr lead and compounds

0.011 lb/hr mercury and compounds

0.0076 lb/hr nickel and compounds

Applicable Compliance Method:

See V.2

2. Within 6 months prior to the expiration of this permit, the permittee shall conduct performance tests to demonstrate compliance with the allowable mass emissions 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 or local air agency. 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 or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency 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. None