

Facility ID: 1431071212 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

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

Facility ID: 1431071212 Emissions Unit ID: N004 Issuance type: Final State Permit To Operate

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
375 lb/hr multiple chamber, Intermittent feed HMIW Incinerator	OAC rule 3745-31-05	See section B.1. below.
	OAC rule 3745-75-02(B)	Particulate matter emissions shall not exceed 0.10 lb/100 lbs waste charged.
	OAC rule 3745-75-02(D)	Hydrogen chloride emissions shall not exceed 4.0 lbs/hr unless the emissions have been reduced by control equipment having a minimum control efficiency of 90% by weight.
	OAC rule 3745-75-02(E)	Carbon monoxide emissions shall not exceed 100 ppm by volume, on a dry basis, adjusted to 7% oxygen in the exhaust stream as an hourly average.
	OAC rule 3745-75-02(F)	Emissions of metals and their compounds shall not exceed:
		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	
	OAC rule 3745-75-02(G)	See section A.2.a. below.
	OAC rule 3745-17-07(A)	Less stringent than OAC rule 3745-75-02(G).
	OAC rule 3745-17-09(B)	Same as OAC rule 3745-75-02(B).
	OAC rule 3745-75-03	See section B.2. through 12. below.

2. Additional Terms and Conditions

- (a) Visible particulate emissions shall not exceed 5% opacity, as a 6-minute average, except for 6 minutes in any continuous 60-minute period during which the opacity shall not exceed 10%.

B. Operational Restrictions

1. The maximum amount of infectious waste charged to this incinerator shall not exceed 375 lbs/hr.
2. Pursuant to OAC rule 3745-75-03(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 re-incinerated.

3. Pursuant to OAC rule 3745-75-03(B), 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.
4. Pursuant to OAC rule 3745-75-03(D), the secondary combustion chamber of this incinerator shall allow for a 2-second retention time at 1800 degrees Fahrenheit.
5. Pursuant to OAC rule 3745-75-03(F), this batch incinerator shall be equipped with 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.
6. Pursuant to OAC rule 3745-75-03(G), infectious waste shall not be loaded into the primary combustion chamber of this incinerator until the exit gas temperature has reached 1200 degrees Fahrenheit.
7. Pursuant to OAC rule 3745-75-03(H), 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.
8. Pursuant to OAC rule 3745-75-03(I), 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.
9. Pursuant to OAC rule 3745-75-03(K), this incinerator, including all associated equipment and grounds, shall be designed, operated and maintained to prevent the emission of objectionable odors.
10. Pursuant to OAC rule 3745-75-03(L), infectious waste that is also radioactive 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. Radioactive waste which has levels of radioactivity which requires special treatment or disposal according to the United States Nuclear Regulatory Commission and the Ohio Department of Health shall not be charged into this infectious waste incinerator.
11. Pursuant to OAC rule 3745-75-03(M), 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.
12. Pursuant to OAC rule 3745-75-03(N), all infectious waste incinerators are to be operated only by properly trained personnel. A minimum of forty hours of incinerator operation training shall be provided to each operator before he/she is allowed to operate the incinerator. This may include, for each operator, the successful completion of the training course in the operation and maintenance of hospital medical waste incinerators developed by the Control Technology Center, USEPA, 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 made available to Ohio EPA personnel upon request.

C. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-75-04(A) and (D), the permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the primary combustion exhaust gas temperature and the secondary combustion exhaust gas temperature 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% 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. Pursuant to OAC rule 3745-75-04(C), 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. Pursuant to OAC rule 3745-75-04(E), a scale (accurate to within one pound) shall be installed employed 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. Pursuant to OAC rule 3745-75-05(D), a logbook shall be maintained for each continuous monitoring system installed on this incinerator to document all activities involving the monitoring systems.

D. Reporting Requirements

1. Reporting Requirements for Temperature Excursions

Pursuant to OAC rule 3745-75-05(C), the permittee shall submit quarterly 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.

2. 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.

3. 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. At 2 1/2 years after the effective date of this permit, and 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 and/or control efficiency as specified in OAC rule 3745-75-02(B) and (D) through (F), as applicable, for particulates, hydrogen chloride, carbon monoxide, arsenic, beryllium, cadmium, chromium, lead, mercury, and nickel. The emissions tests 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 for particulate, 10 for carbon monoxide, 26 for hydrogen chloride, and 29 for arsenic, beryllium, cadmium, chromium, lead and nickel, and 40 CFR, Part 61, Appendix B, Method 101A for mercury. The tests 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 Hamilton County Department of Environmental Services. 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 Hamilton County Department of Environmental Services 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 tests, examine the testing equipment and acquire data and information regarding the emissions unit operating parameters.

2. Compliance with the infectious waste charge limit in B.1. shall be determined by the record keeping requirements in C.3.
3. Compliance with each mass emission limit in A.1. shall be determined by stack testing using the appropriate method specified in E.1.
4. Compliance with the visible particulate emissions limit shall be determined using the method specified in 40 CFR, Part 60, Appendix A, Method 9.

F. **Miscellaneous Requirements**

1. None