

15A NCAC 02D .1206 HOSPITAL, MEDICAL, AND INFECTIOUS WASTE INCINERATORS

(a) Applicability. This Rule applies to any hospital, medical, and infectious waste incinerator (HMIWI), except:

- (1) any HMIWI required to have a permit under Section 3005 of the Solid Waste Disposal Act;
- (2) any pyrolysis unit;
- (3) any cement kiln firing hospital waste or medical and infectious waste;
- (4) any physical or operational change made to an existing HMIWI solely for the purpose of complying with the emission standards for HMIWIs in this Rule. These physical or operational changes are not considered a modification and do not result in an existing HMIWI becoming subject to the provisions of 40 CFR Part 60, Subpart Ec;
- (5) any HMIWI during periods when only pathological waste, low-level radioactive waste, or chemotherapeutic waste is burned, provided that the owner or operator of the HMIWI:
 - (A) notifies the Director of an exemption claim; and
 - (B) keeps records on a calendar quarter basis of the periods of time when only pathological waste, low-level radioactive waste, or chemotherapeutic waste is burned; or
- (6) any co-fired HMIWI, if the owner or operator of the co-fired HMIWI:
 - (A) notifies the Director of an exemption claim;
 - (B) provides an estimate of the relative weight of hospital, medical and infectious waste, and other fuels or wastes to be combusted; and
 - (C) keeps records on a calendar quarter basis of the weight of hospital, medical and infectious waste combusted, and the weight of all other fuels and wastes combusted at the co-fired HMIWI.

(b) Definitions. For the purpose of this Rule, the definitions contained in 40 CFR 60.51c shall apply in addition to the definitions in Rule .1202 of this Section.

(c) Emission Standards.

- (1) The emission standards in this Paragraph apply to all incinerators subject to this Rule except where Rules .0524, .1110, or .1111 of this Subchapter applies. However, when Subparagraphs (13) or (14) of this Paragraph and Rules .0524, .1110, or .1111 of this Subchapter regulate the same pollutant, the more restrictive provision for each pollutant shall apply, notwithstanding provisions of Rules .0524, .1110, or .1111 of this Subchapter to the contrary.
- (2) Particulate Matter.
 - (A) Emissions of particulate matter from a HMIWI shall not exceed:

Incinerator Size	Allowable Emission Rate (mg/dscm) [corrected to seven percent oxygen]
Small	115
Medium	69
Large	34

- (B) Emissions of particulate matter from any small remote HMIWI shall not exceed 197 milligrams per dry standard cubic meter, corrected to seven percent oxygen.
- (3) Visible Emissions. On and after the date on which the initial performance test is completed, the owner or operator of any HMIWI shall not cause to be discharged into the atmosphere from the stack of the HMIWI any gases that exhibit greater than 10 percent opacity (6-minute block average).
- (4) Sulfur Dioxide. Emissions of sulfur dioxide from any HMIWI shall not exceed 55 parts per million corrected to seven percent oxygen (dry basis).
- (5) Nitrogen Oxide. Emissions of nitrogen oxides from any HMIWI shall not exceed 250 parts per million by volume corrected to seven percent oxygen (dry basis).
- (6) Carbon Monoxide. Emissions of carbon monoxide from any HMIWI shall not exceed 40 parts per million by volume, corrected to seven percent oxygen (dry basis).
- (7) Odorous Emissions. Any incinerator subject to this Rule shall comply with Rule .1806 of this Subchapter for the control of odorous emissions.
- (8) Hydrogen Chloride.
 - (A) Emissions of hydrogen chloride from any small, medium, or large HMIWI shall be reduced by at least 93 percent by weight or volume or to no more than 100 parts per million by

volume corrected to seven percent oxygen (dry basis), whichever is less stringent. Compliance with this Part shall be determined by averaging emissions over a one-hour period.

- (B) Emissions of hydrogen chloride from any small remote HMIWI shall not exceed 3100 parts per million by volume corrected to seven percent oxygen (dry basis). Compliance with this Part shall be determined by averaging emissions over a one-hour period.
- (9) Mercury Emissions.
 - (A) Emissions of mercury from any small, medium, or large HMIWI shall be reduced by at least 85 percent by weight or shall not exceed 0.55 milligrams per dry standard cubic meter, corrected to seven percent oxygen, whichever is less stringent. Compliance with this Part shall be determined by averaging emissions over a one-hour period.
 - (B) Emissions of mercury from any small remote HMIWI shall not exceed 7.5 milligrams per dry standard cubic meter, corrected to seven percent oxygen. Compliance with this Part shall be determined by averaging emissions over a one-hour period.
- (10) Lead Emissions.
 - (A) Emissions of lead from any small, medium, or large HMIWI shall be reduced by at least 70 percent by weight or shall not exceed 1.2 milligrams per dry standard cubic meter, corrected to seven percent oxygen, whichever is less stringent.
 - (B) Emissions of lead from any small remote HMIWI shall not exceed 10 milligrams per dry standard cubic meter, corrected to seven percent oxygen.
- (11) Cadmium Emissions.
 - (A) Emissions of cadmium from any small, medium, or large HMIWI shall be reduced by at least 65 percent by weight or shall not exceed 0.16 milligrams per dry standard cubic meter, corrected to seven percent oxygen, whichever is less stringent.
 - (B) Emissions of cadmium from any small remote HMIWI shall not exceed 4 milligrams per dry standard cubic meter, corrected to seven percent oxygen.
- (12) Dioxins and Furans.
 - (A) Emissions of dioxins and furans from any small, medium, or large HMIWI shall not exceed 125 nanograms per dry standard cubic meter total dioxins and furans, corrected to seven percent oxygen or 2.3 nanograms per dry standard cubic meter (total equivalency), corrected to seven percent oxygen.
 - (B) Emissions of dioxins and furans from any small remote HMIWI shall not exceed 800 nanograms per dry standard cubic meter total dioxins and furans, corrected to seven percent oxygen or 15 nanograms per dry standard cubic meter (total equivalency), corrected to seven percent oxygen.
- (13) Toxic Emissions. The owner or operator of any incinerator subject to this Rule shall demonstrate compliance with Section .1100 of this Subchapter according to 15A NCAC 02Q .0700.
- (14) Ambient Standards.
 - (A) In addition to the ambient air quality standards in Section .0400 of this Subchapter, the following ambient air quality standards, which are an annual average, in milligrams per cubic meter at 77 degrees F (25 degrees C) and 29.92 inches (760 mm) of mercury pressure, and which are increments above background concentrations, shall apply aggregately to all incinerators at a facility subject to this Rule:

(i)	arsenic and its compounds	2.3x10 ⁻⁷
(ii)	beryllium and its compounds	4.1x10 ⁻⁶
(iii)	cadmium and its compounds	5.5x10 ⁻⁶
(iv)	chromium (VI) and its compounds	8.3x10 ⁻⁸
 - (B) The owner or operator of a facility with incinerators subject to this Rule shall demonstrate compliance with the ambient standards in Subparts (i) through (iv) of Part (A) of this Subparagraph by following the procedures set out in Rule .1106 of this Subchapter. Modeling demonstrations shall comply with the requirements of Rule .0533 of this Subchapter.
 - (C) The emission rates computed or used under Part (B) of this Subparagraph that demonstrate compliance with the ambient standards under Part (A) of this Subparagraph shall be specified as a permit condition for the facility with incinerators subject to this Rule as their allowable

emission limits unless Rules .0524, .1110, or .1111 of this Subchapter requires more restrictive rates.

(d) Operational Standards.

- (1) The operational standards in this Rule do not apply to any incinerator subject to this Rule when applicable operational standards in Rule .0524, .1110, or .1111 of this Subchapter apply.
- (2) Each small remote HMIWI shall have an initial equipment inspection by July 1, 2000, and an annual inspection each year thereafter.
 - (A) At a minimum, the inspection shall include all the elements listed in 40 CFR 60.36e(a)(1)(i) through (xvii).
 - (B) Any necessary repairs found during the inspection shall be completed within 10 operating days of the inspection unless the owner or operator submits a written request to the Director for an extension of the 10 operating day period. The Director shall grant the extension if:
 - (i) the owner or operator of the small remote HMIWI demonstrates that achieving compliance by the time allowed under this Part is not feasible; and
 - (ii) the Director does not extend the time allowed for compliance by more than 30 days following the receipt of the written request.
- (3) The owner or operator of any HMIWI, except small remote HMIWI, subject to this Rule shall comply with the compliance and performance testing requirements of 40 CFR 60.56c, excluding the fugitive emissions testing requirements under 40 CFR 60.56c(b)(12) and (c)(3).
- (4) The owner or operator of any small remote HMIWI shall comply with the following compliance and performance testing requirements:
 - (A) conduct the performance testing requirements in 40 CFR 60.56c(a), (b)(1) through (b)(9), (b)(11)(mercury only), and (c)(1). The 2,000 pound per week limitation does not apply during performance tests;
 - (B) establish maximum charge rate and minimum secondary chamber temperature as site-specific operating parameters during the initial performance test to determine compliance with applicable emission limits; and
 - (C) following the date on which the initial performance test is completed, ensure that the HMIWI does not operate above the maximum charge rate or below the minimum secondary chamber temperature measured as three hour rolling averages, calculated each hour as the average of all previous three operating hours, at all times except during periods of start-up, shut-down and malfunction. Operating parameter limits do not apply during performance tests. Operation above the maximum charge rate or below the minimum secondary chamber temperature shall constitute a violation of the established operating parameters.
- (5) Except as provided in Subparagraph (3) of this Paragraph, operation of the HMIWI above the maximum charge rate and below the minimum secondary temperature, each measured on a three hour rolling average, simultaneously shall constitute a violation of the particulate matter, carbon monoxide, and dioxin and furan emission limits.
- (6) The owner or operator of a HMIWI may conduct a repeat performance test within 30 days of violation of applicable operating parameters to demonstrate that the HMIWI is not in violation of the applicable emission limits. Repeat performance tests conducted pursuant to this Subparagraph shall be conducted using the identical operating parameters that indicated a violation under Subparagraph (4) of this Paragraph.

(e) Test Methods and Procedures.

- (1) The test methods and procedures described in Section .2600 of this Subchapter and in 40 CFR Part 60 Appendix A and 40 CFR Part 61 Appendix B shall be used to determine compliance with emission rates. Method 29 of 40 CFR Part 60 shall be used to determine emission rates for metals. However, Method 29 shall be used to sample for chromium (VI), and SW 846 Method 0060 shall be used for the analysis.
- (2) The Director may require the owner or operator to test his incinerator to demonstrate compliance with the emission standards listed in Paragraph (c) of this Rule.

(f) Monitoring, Recordkeeping, and Reporting.

- (1) The owner or operator of an incinerator subject to the requirements of this Rule shall comply with the monitoring, recordkeeping, and reporting requirements in Section .0600 of this Subchapter.

- (2) The owner or operator of an incinerator subject to the requirements of this Rule shall maintain and operate a continuous temperature monitoring and recording device for the primary chamber and, where there is a secondary chamber, for the secondary chamber. The owner or operator of an incinerator that has installed air pollution abatement equipment to reduce emissions of hydrogen chloride shall install, operate, and maintain continuous monitoring equipment to measure pH for wet scrubber systems and rate of alkaline injection for dry scrubber systems. The Director shall require the owner or operator of an incinerator with a permitted charge rate of 750 pounds per hour or more to install, operate, and maintain continuous monitors for oxygen or for carbon monoxide or both as necessary to determine proper operation of the incinerator. The Director may require the owner or operator of an incinerator with a permitted charge rate of less than 750 pounds per hour to install, operate, and maintain monitors for oxygen or for carbon monoxide or both as necessary to determine proper operation of the incinerator.
 - (3) In addition to the requirements of Subparagraphs (1) and (2) of this Paragraph, the owner or operator of a HMIWI shall comply with the reporting and recordkeeping requirements listed in 40 CFR 60.58c(b), (c), (d), (e), and (f), excluding 40 CFR 60.58c(b)(2)(ii) and (b)(7).
 - (4) In addition to the requirements of Subparagraphs (1), (2) and (3) of this Paragraph, the owner or operator of a small remote HMIWI shall:
 - (A) maintain records of the annual equipment inspections, any required maintenance, and any repairs not completed within 10 days of an inspection;
 - (B) submit an annual report containing information recorded in Part (A) of this Subparagraph to the Director no later than 60 days following the year in which data were collected. Subsequent reports shall be sent no later than 12 calendar months following the previous report. The report shall be signed by the HMIWI manager; and
 - (C) submit the reports required by Parts (A) and (B) of this Subparagraph to the Director semiannually once the HMIWI is subject to the permitting procedures of 15A NCAC 02Q .0500, Title V Procedures.
 - (5) Waste Management Guidelines. The owner or operator of a HMIWI shall comply with the requirements of 40 CFR 60.55c for the preparation and submittal of a waste management plan.
 - (6) Except as provided in Subparagraph (7) of this Paragraph, the owner or operator of any HMIWI shall comply with the monitoring requirements in 40 CFR 60.57c.
 - (7) The owner or operator of any small remote HMIWI shall:
 - (A) install, calibrate, maintain, and operate a device for measuring and recording the temperature of the secondary chamber on a continuous basis, the output of which shall be recorded, at a minimum, once every minute throughout operation.
 - (B) install, calibrate, maintain, and operate a device which automatically measures and records the date, time, and weight of each charge fed into the HMIWI.
 - (C) obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75 percent of the operating hours per day and for 90 percent of the operating hours per calendar quarter that the HMIWI is combusting hospital, medical, and infectious waste.
- (g) Excess Emissions and Start-up and Shut-down. All incinerators subject to this Rule shall comply with Rule .0535, Excess Emissions Reporting and Malfunctions, of this Subchapter.
- (h) Operator Training and Certification.
- (1) The owner or operator of a HMIWI shall not allow the HMIWI to operate at any time unless a fully trained and qualified HMIWI operator is accessible, either at the facility or available within one hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one or more HMIWI operators.
 - (2) Operator training and qualification shall be obtained by completing the requirements of 40 CFR 60.53c(c) through (g).
 - (3) The owner or operator of a HMIWI shall maintain, at the facility, all items required by 40 CFR 60.53c(h)(1) through (h)(10).
 - (4) The owner or operator of a HMIWI shall establish a program for reviewing the information required by Subparagraph (3) of this Paragraph annually with each HMIWI operator. The reviews of the information shall be conducted annually.

- (5) The information required by Subparagraph (3) of this Paragraph shall be kept in a readily accessible location for all HMIWI operators. This information, along with records of training shall be available for inspection by Division personnel upon request.

*History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); 40 CFR 60.34e;
Eff. October 1, 1991;
Amended Eff. June 1, 2008; August 1, 2002; July 1, 2000; July 1, 1999; July 1, 1998; July 1, 1996;
April 1, 1995; December 1, 1993.*