

**SECTION .1200 - CONTROL OF EMISSIONS FROM INCINERATORS****.1201 PURPOSE AND SCOPE**

- (a) This Section sets forth rules for the control of the emissions of air pollutants from incinerators.
- (b) The rules in this Section apply to all types of incinerators as defined by Chapter 4 .0101(21), including incinerators with heat recovery and industrial incinerators.
- (c) The rules in this Section do not apply to:
- (1) afterburners, flares, fume incinerators, and other similar devices used to reduce the emissions of air pollutants from processes, whose emissions shall be regulated as process emissions;
  - (2) any boilers or industrial furnaces that burn waste as a fuel, except hazardous waste as defined in 40 CFR 260.10;
  - (3) air curtain burners, which shall comply with Section .1900 of this Chapter; or
  - (4) incinerators, used to dispose of dead animals or poultry, that meet the following requirements:
    - (A) the incinerator is located on a farm and is operated by the farm owner or by the farm operator;
    - (B) the incinerator is used solely to dispose of animals or poultry originating on the farm where the incinerator is located;
    - (C) the incinerator is not charged at a rate that exceeds its design capacity; and
    - (D) the incinerator complies with Rule .0521 (visible emissions) and .1806 (odorous emissions) of this Chapter.
- (d) If an incinerator is more than one type of incinerator, then the following order shall be used to determine the standards and requirements to apply:
- (1) hazardous waste incinerators;
  - (2) sewage sludge incinerators;
  - (3) sludge incinerators;
  - (4) municipal waste combustors;
  - (5) commercial and industrial solid waste incinerators;
  - (6) hospital, medical, or infectious waste incinerators (HMIWIs);
  - (7) other solid waste incinerators;
  - (8) conical incinerators;
  - (9) crematory incinerators; and
  - (10) other incinerators.

(e) In addition to any permit that may be required under Chapter 17, Air Quality Permits Procedures, a permit may be required by the Division of Waste Management as determined by the permitting rules enforced by the Division of Waste Management.

(f) Referenced document SW-846 "Test Methods for Evaluating Solid Waste," Third Edition, cited by Rules in this Section is hereby incorporated by reference and does not include subsequent amendments or editions. A copy of this document is available for inspection at the North Carolina Department of Environment and Natural Resources Library located at 512 North Salisbury Street, Raleigh, NC 27603. Copies of this document may be obtained through the US Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954, or by calling (202) 783-3238. The cost of this document is three hundred nineteen dollars (\$319.00).

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## **.1202 DEFINITIONS**

(a) For the purposes of this Section, the definitions at N.C.G.S. 143-212 and 143-213 and Chapter 4.0101 shall apply, and in addition the following definitions shall apply. If a term in this Rule is also defined at Chapter 4.0101, then the definition in this Rule controls.

- (1) "Class I municipal waste combustor" means a small municipal waste combustor located at a municipal waste combustion plant with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste.
- (2) "Commercial and industrial solid waste incinerator" (CISWI) or "commercial and industrial solid waste incineration unit" means any combustion device, except air pollution control devices, that combusts commercial and industrial waste.
- (3) "Commercial and industrial waste" means solid waste combusted in an enclosed device using controlled flame combustion without energy recovery that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air).

- (4) “Co-fired combustor (as defined in 40 CFR Part 60, Subpart Ec)” means a unit combusting hospital, medical, or infectious waste with other fuels or wastes (e.g., coal, municipal solid waste) and subject to an enforceable requirement limiting the unit to combusting a fuel feed stream, 10 percent or less of the weight of which is comprised, in aggregate, of hospital, medical, or infectious waste as measured on a calendar quarter basis. For the purposes of this definition, pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered “other” wastes when calculating the percentage of hospital, medical, or infectious waste combusted.
- (5) “Crematory incinerator” means any incinerator located at a crematory regulated under 21 NCAC 34C that is used solely for the cremation of human remains.
- (6) “Construction and demolition waste” means wood, paper, and other combustible waste, except for hazardous waste and asphaltic material, resulting from construction and demolition projects.
- (7) “Dioxin and Furan” means tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans.
- (8) “Hazardous waste incinerator” means an incinerator regulated under 15A NCAC 13A .0101 through .0119, 40 CFR 264.340 to 264.351, Subpart O, or 265.340 to 265.352, Subpart O.
- (9) “Hospital, medical and infectious waste incinerator (HMIWI)” means any device that combusts any amount of hospital, medical and infectious waste.
- (10) “Large HMIWI” means:
  - (A) a HMIWI whose maximum design waste burning capacity is more than 500 pounds per hour;
  - (B) a continuous or intermittent HMIWI whose maximum charge rate is more than 500 pounds per hour; or
  - (C) a batch HMIWI whose maximum charge rate is more than 4,000 pounds per day.
- (11) “Hospital waste” means discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.
- (12) “Institutional facility” means a land-based facility owned or operated by an organization having a governmental, educational, civic, or religious purpose, such as a school, hospital, prison, military installation, church, or other similar establishment or facility.

- (13) “Institutional waste” means solid waste that is combusted at any institutional facility using controlled flame combustion in an enclosed, distinct operating unit:
- (A) whose design does not provide for energy recovery and
  - (B) which is operated without energy recovery or operated with only waste heat recovery.

Institutional waste also means solid waste combusted on site in an air curtain incinerator that is a distinct operating unit of any institutional facility.

- (14) “Institutional waste incineration unit” means any combustion unit that combusts institutional waste and is a distinct operating unit of the institutional facility that generated the waste.
- (15) “Large municipal waste combustor” means each municipal waste combustor unit with a combustion capacity greater than 250 tons per day of municipal solid waste.
- (16) “Medical and Infectious Waste” means any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals that is listed in Part (A)(i) through (vii) of this Subparagraph.
- (A) The definition of medical and infectious waste includes:
    - (i) cultures and stocks of infectious agents and associated biologicals, including:
      - (I) cultures from medical and pathological laboratories;
      - (II) cultures and stocks of infectious agents from research and industrial laboratories;
      - (III) wastes from the production of biologicals;
      - (IV) discarded live and attenuated vaccines; and
      - (V) culture dishes and devices used to transfer, inoculate, and mix cultures;
    - (ii) human pathological waste, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers;
    - (iii) human blood and blood products including:
      - (I) liquid waste human blood;
      - (II) products of blood;
      - (III) items saturated or dripping with human blood; or
      - (IV) items that were saturated or dripping with human blood that are now caked with dried human blood including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis

or the development of pharmaceuticals. Intravenous bags are also included in this category;

- (iv) sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips;
  - (v) animal waste including contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals or testing of pharmaceuticals;
  - (vi) isolation wastes including biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect others from highly communicable diseases, or isolated animals known to be infected with highly communicable diseases; and
  - (vii) unused sharps including the following unused or discarded sharps;
    - (I) hypodermic needles;
    - (II) suture needles;
    - (III) syringes; and
    - (IV) scalpel blades.
- (B) The definition of medical and infectious waste does not include:
- (i) hazardous waste identified or listed under 40 CFR Part 261;
  - (ii) household waste, as defined in 40 CFR 261.4(b)(1);
  - (iii) ash from incineration of medical and infectious waste, once the incineration process has been completed;
  - (iv) human corpses, remains, and anatomical parts that are intended for interment or cremation; and
  - (v) domestic sewage materials identified in 40 CFR 261.4(a)(1).
- (17) "Medium HMIWI" means:
- (A) a HMIWI whose maximum design waste burning capacity is more than 200 pounds per hour but less than or equal to 500 pounds per hour;
  - (B) a continuous or intermittent HMIWI whose maximum charge rate is more than 200 pounds per hour but less than or equal to 500 pounds per hour; or

- (C) a batch HMIWI whose maximum charge rate is more than 1,600 pounds per day but less than or equal to 4,000 pounds per day.
- (18) "Municipal waste combustor (MWC) or municipal waste combustor unit" means a municipal waste combustor as defined in 40 CFR 60.51b.
- (19) "Municipal waste combustor plant" means one or more designated units at the same location.
- (20) "Municipal waste combustor unit capacity" means the maximum charging rate of a municipal waste combustor unit expressed in tons per day of municipal solid waste combusted, calculated according to the procedures under 40 CFR 60.58b(j). Section 60.58b(j) includes procedures for determining municipal waste combustor unit capacity for continuous and batch feed municipal waste combustors.
- (21) "Municipal-type solid waste (MSW) or Municipal Solid Waste" means municipal-type solid waste defined in 40 CFR 60.51b.
- (22) "POTW" means a publicly owned treatment works as defined in 40 CFR 501.2.
- (23) "Other solid waste incineration unit" or "OSWI unit" means either a very small municipal waste combustion unit or an institutional waste incineration unit, as defined in this subpart.
- (24) "Same Location" means the same or contiguous property that is under common ownership or control including properties that are separated only by a street, road, highway, or other public right-of-way. Common ownership or control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, subdivision, or any combination thereof including any municipality or other governmental unit, or any quasi-governmental authority (e.g., a public utility district or regional waste disposal authority).
- (25) "Sewage sludge incinerator" means any incinerator regulated under 40 CFR Part 503, Subpart E.
- (26) "Sludge incinerator" means any incinerator regulated under Rule .1110 of this Chapter but not under 40 CFR Part 503, Subpart E.
- (27) "Small HMIWI" means:
- (A) a HMIWI whose maximum design waste burning capacity is less than or equal to 200 pounds per hour;
  - (B) a continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 pounds per hour; or
  - (C) a batch HMIWI whose maximum charge rate is less than or equal to 1,600 pounds per day.

- (28) "Small municipal waste combustor" means each municipal waste combustor unit with a combustion capacity that is greater than 11 tons per day but not more than 250 tons per day of municipal solid waste.
- (29) "Small remote HMIWI" means any small HMIWI which is located more than 50 miles from the boundary of the nearest Standard Metropolitan Statistical Area (SMSA) and which burns less than 2,000 pounds per week of hospital, medical and infectious waste. The 2,000 pound per week limitation does not apply during performance tests.
- (30) "Standard Metropolitan Statistical Area (SMSA)" means any area listed in Office of Management and Budget (OMB) Bulletin No. 93-17, entitled "Revised Statistical Definitions for Metropolitan Areas" dated July 30, 1993. The referenced document cited by this Item is hereby incorporated by reference and does not include subsequent amendments or editions. A copy of this document may be obtained through the internet at "<http://www.census.gov/population/estimates/metro-city/93mfips.txt>".
- (31) "Very small municipal waste combustion unit" means any municipal waste combustion unit that has the capacity to combust less than 35 tons per day of municipal solid waste or refuse-derived fuel, as determined by the calculations in 40 CFR 60.3076.

(b) Whenever reference is made to the Code of Federal Regulations in this Section, the definition in the Code of Federal Regulations shall apply unless specifically stated otherwise in a particular rule.

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**.1203 HAZARDOUS WASTE INCINERATORS**

- (a) Applicability. This Rule applies to hazardous waste incinerators.
- (b) Definitions. For the purpose of this Rule, the definitions contained in 40 CFR 260.10, 270.2, and 40 CFR 63.1201 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 Rule .0524, .1110, or .1111 of this Chapter applies. However, when Subparagraph (8) or (9) of this Paragraph or Paragraph (h) of this Rule and Rule .0524, .1110, or .1111 of this Chapter regulate the same pollutant, the more restrictive provision for each pollutant shall apply, notwithstanding provisions of Rule .0524, .1110, or .1111 of this Chapter to the contrary.
  - (2) Particulate Matter. Any incinerator subject to this Rule shall meet the particulate matter emission requirements of 40 CFR 264.343(c).
  - (3) Visible Emissions. Any incinerator subject to this Rule shall comply with Rule .0521 of this Chapter for the control of visible emissions.
  - (4) Sulfur Dioxide. Any incinerator subject to this Rule shall comply with Rule .0516 of this Chapter for the control of sulfur dioxide emissions.
  - (5) Odorous Emissions. Any incinerator subject to this Rule shall comply with Rule .1806 of this Chapter for the control of odorous emissions.
  - (6) Hydrogen Chloride. Any incinerator subject to this Rule shall meet the hydrogen chloride emission requirements of 40 CFR 264.343(b). Compliance with this Subparagraph shall be determined by averaging emissions over a one-hour period.
  - (7) Mercury Emissions. The emissions of mercury and mercury compounds from the stack or chimney of any incinerator subject to this Rule shall not exceed 0.032 pounds per hour. Compliance with this Subparagraph shall be determined by averaging emissions over a one-hour period.
  - (8) Toxic Emissions. The owner or operator of any incinerator subject to this Rule shall demonstrate compliance with Section .1100 of this Chapter according to Chapter 17 .0700 for the control of toxic emissions.
  - (9) Ambient Standards.
    - (A) In addition to the ambient air quality standards in Section .0400 of this Chapter, the following ambient air quality standards, which are an annual average, in milligrams per cubic meter at 77°F (25°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	$2.3 \times 10^{-7}$
(ii) beryllium and its compounds	$4.1 \times 10^{-6}$
(iii) cadmium and its compounds	$5.5 \times 10^{-6}$
(iv) chromium (VI) and its compounds	$8.3 \times 10^{-8}$



- (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 Chapter. Modeling demonstrations shall comply with the requirements of Rule .0533 of this Chapter.
  - (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 Rule .0524, .1110, or .1111 of this Chapter 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 Chapter apply.
  - (2) Hazardous waste incinerators shall comply with 15A NCAC 13A .0101 through .0119, which are administered and enforced by the Division of Waste Management.
- (e) Test Methods and Procedures.
- (1) The test methods and procedures described in Section .2600 of this Chapter 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 Chapter, 40 CFR 270.31, and 40 CFR 264.347.
  - (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.

(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 Chapter.

(h) Incinerators subject to this Rule shall comply with the emission limits, operational specifications, and other restrictions or conditions determined by the Division of Waste Management under 40 CFR 270.32, establishing Resource Conservation and Recovery Act permit conditions, as necessary to protect human health and the environment.

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