

Title: Municipal Waste Combustor Rules (02D .1205 and .1212)

Reason for Action: Rules Review Commission (RRC) has returned these rules to the Environmental Management Commission (EMC) for approval because, in their judgment, changes made at the RRC were significant enough to warrant EMC review.

Action Requested: EMC approval of the revised rules.

Background: On November 13, 2008, the Environmental Management Commission approved amendments to 02D .1205 (Large Municipal Waste Combustors) and adoption of 02D .1212 (Small Municipal Waste Combustors). This action effectively split what was one rule into 2 rules (large and small). Other amendments were included in those rules to improve rule clarity and align requirements with new Federal requirements.

On December 18, 2008, the RRC extended the period of review on the 2 rules. The review period was extended because of a formal, written request (by the only municipal waste combustor in NC – New Hanover County WASTEC) that a fiscal note be prepared by the Office of State Management and Budget (OSBM). See G.S. 150B-21.9. The Division had not prepared a fiscal note because the original rule amendments were viewed as a clarification, not new or additional requirement. The WASTEC representatives felt that the rule amendments placed a substantial additional economic burden on the local government owned facility.

On January 20, 2009, OSBM made the determination that the proposed amendments did not constitute a substantial economic impact. Additionally, they determined that the rule changes are clarifying the existing standards, rather than imposing new requirements, therefore they do not have an impact on the expenditures or revenues of a unit of local government.

On January 22, 2009, the RRC extended the period of review again. RRC staff had requested additional time to review the facts of this case.

The Division of Air Quality (DAQ) and WASTEC began discussing WASTEC's issues after the January 22, 2009 RRC meeting. The DAQ researched many of the technical questions asked by WASTEC. The main element of the rule questioned by WASTEC was the annual testing requirements for 3 compounds (arsenic, beryllium and chromium). The results of DAQ's research were shared with WASTEC during conference calls held on February 4, 2009 and again on February 10, 2009.

The result of the DAQ technical analysis and discussion with WASTEC led to DAQ proposing, and WASTEC accepting, a compromise approach for testing for arsenic, beryllium and chromium.

DAQ and WASTEC have agreed to the following:

- The additional cost to analyze total chromium, beryllium and arsenic is ~\$50 per compound (since Method 29 tests are already being conducted annually by WASTEC). WASTEC's testing contractor, Deeco, confirmed this approximate cost.

- DAQ will remove chromium, beryllium and arsenic from the annual testing requirements in 02D .1205(e)(3) and 02D .1212(e)(8). Note: DAQ will retain the initial testing requirements in 02D .1205(e)(3) and 02D .1212(e)(8). However, WASTEC has already satisfied this initial test requirement for chromium, beryllium and arsenic.
- The WASTEC permit will be opened by DAQ to include the testing requirements listed below as a permit condition. At the same time, the permit will be amended to reflect the amended rules (02D .1205 and 02D .1212).
 - WASTEC will perform total chromium tests annually for the next 3 calendar years
 - The test conducted during the week of 2/9/09 will count as test 1 of 3
 - If the results of the 3 total chromium tests demonstrate they are below the AAL, and below the emission limit in the permit for chromium VI, then the frequency of the total chromium tests shall be once per permit term (this is equivalent to once every 5 years).
- WASTEC will perform arsenic and beryllium tests once per permit term (this is equivalent to once every 5 years)

02D .1205 was published in 22:23 NCR 2087-2097
02D .1212 was published in 22:23 NCR 2097-2102:

The re-written rules are attached below. The changes are only to the annual testing requirements in 02D .1205(e)(3) and 02D .1212(e)(8).

15A NCAC 02D .1205 LARGE MUNICIPAL WASTE COMBUSTORS

(a) Applicability. This Rule applies ~~to:~~ to

- (1) ~~Class I municipal waste combustors, as defined in Rule .1202 of this Section; and~~
- (2) Large large municipal waste combustors, as defined in Rule .1202 of this Section.

(b) Definitions. For the purpose of this Rule, the definitions contained in 40 CFR ~~60.31b 60.51b and 40 CFR 60.1940~~ (except ~~administration~~ administrator means the Director of the Division of Air Quality) 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 any municipal waste combustor subject to the requirements of this Rule except where Rule .0524, .1110, or .1111 of this Subchapter applies. However, when Subparagraphs (13) or (14) of this Paragraph and Rule .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. Emissions of particulate matter from each municipal waste combustor shall not ~~exceed 27 milligrams per dry standard cubic meter corrected to seven percent oxygen.~~ exceed:
 - (A) before April 28, 2009, 27 milligrams per dry standard cubic meter corrected to seven percent oxygen, and
 - (B) on or after April 28, 2009, 25 milligrams per dry standard cubic meter corrected to seven percent oxygen.
- (3) Visible Emissions. The emission limit for opacity from ~~any~~ each municipal waste combustor shall not exceed 10 percent (6-minute average) (~~average of 30 6-minute averages~~).
- (4) ~~Sulfur Dioxide.~~
 - (A) ~~Emissions of sulfur dioxide from each class I municipal waste combustor shall be reduced by at least 75 percent by weight or volume of potential sulfur dioxide emissions or to no more than 31 parts per million by volume corrected to seven percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily block geometric average concentration percent reduction.~~
 - (B) ~~Emissions of sulfur dioxide from each large municipal waste combustor shall be:~~
 - (i) ~~reduced by at least 75 percent by weight or volume, or to no more than 31 parts per million by volume corrected to seven percent oxygen (dry~~

- basis), whichever is less stringent, by August 1, 2000. Compliance with this emission limit is based on a 24-hour daily geometric mean; and
- (ii) reduced by at least 75 percent by weight or volume, or to no more than 29 parts per million by volume corrected to seven percent oxygen (dry basis), whichever is less stringent, by August 1, 2002. Compliance with this emission limit is based on a 24-hour daily geometric mean.
- (4) Sulfur Dioxide. Emissions of sulfur dioxide from each municipal waste combustor shall be reduced by at least 75 percent reduction or to no more than:
- (A) before April 28, 2009, 34 29 parts per million dry volume, and
- (B) on or after April 28, 2009, 29 parts per million dry volume.
- whichever is less stringent. Percent reduction shall be determined from continuous emissions monitoring data and according to Reference Method 19, Section 12.5.4 of 40 CFR Part 60 Appendix A-7. Compliance with either standard, standard whichever is less stringent, is based on a 24-hour daily block geometric average of concentration data corrected to seven percent oxygen (dry basis).
- (5) Nitrogen Oxides. Oxide.
- (A) Emissions of nitrogen oxide from each class I municipal waste combustor shall not exceed the emission limits in Table 3 40 CFR 60, Subpart BBBB.
- (B) Emissions of nitrogen oxides from each large municipal waste combustor shall not exceed the emission limits in Table 1 of Paragraph (d) of 40 CFR 60.33b. to Subpart Cb of Part 60 "Nitrogen Oxide Guidelines for Designated Facilities." Nitrogen oxide emissions averaging is allowed as specified in 40 CFR 60.33b(d)(1)(i) through (d)(1)(v). Nitrogen oxide emissions averaging shall not exceed Table 2 to Subpart Cb of Part 60 "Nitrogen Oxides Limits for Existing Designated Facilities Included in an Emission Averaging Plan at a Municipal Waste Combustor Plant."
- (C) In addition to the requirements of Part (B) of this Subparagraph, emissions of nitrogen oxide from fluidized bed combustors located at a large municipal waste combustor shall not exceed 180 parts per million by volume, corrected to seven percent oxygen, by August 1, 2002. If nitrogen oxide emissions averaging is used as specified in 40 CFR 60.33b(d)(1)(i) through (d)(1)(v), emissions of nitrogen oxide from fluidized bed combustors located at a large municipal waste combustor shall not exceed 165 parts per million by volume, corrected to seven percent oxygen, by August 1, 2002.
- (6) Odorous Emissions. Each Any incinerator subject to this Rule shall comply with Rule .1806 of this Subchapter for the control of odorous emissions.

- (7) ~~Hydrogen Chloride.~~
- (A) ~~Emissions of hydrogen chloride from each class I municipal waste combustor shall be reduced by at least 95 percent by weight or volume of potential hydrogen chloride emissions or to no more than 31 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 each large municipal waste combustor shall be:~~
- (i) ~~reduced by at least 95 percent by weight or volume, or to no more than 31 parts per million by volume, corrected to seven percent oxygen (dry basis), whichever is less stringent, by August 1, 2000. Compliance with this emission limit shall be determined by averaging emissions over a one-hour period; and~~
- (ii) ~~reduced by at least 95 percent by weight or volume, or to no more than 29 parts per million by volume, corrected to seven percent oxygen (dry basis), whichever is less stringent, by August 1, 2002. Compliance with this Part emission limit shall be determined by averaging emissions over a one-hour period.~~
- (7) Hydrogen Chloride. Emissions of hydrogen chloride from each municipal waste combustor shall be reduced by at least 95 percent, or shall not exceed, as determined by Reference Method 26 or 26A of 40 CFR Part 60 Appendix A-8, more than: than
- (A) ~~before April 28, 2009, 31~~ 29 parts per million dry volume, and
- (B) ~~on or after April 28, 2009, 29 parts per million dry volume. volume, whichever is~~ less stringent.
- Compliance with this Subparagraph shall be determined by averaging emissions over three one-hour test runs, with paired data sets for percent reduction and correction to seven percent oxygen.
- (8) Mercury Emissions. Emissions of mercury from each municipal waste combustor shall be reduced by at least 85 percent by weight of potential mercury emissions or shall not exceed exceed, as determined by Reference Method 26 or 26A of 40 CFR Part 60 Appendix A-8, Method 101 of 40 CFR Part 61 Appendix B, more than 0.08 milligrams per dry standard cubic, corrected to seven percent oxygen, whichever is less stringent. than:
- (A) ~~before April 28, 2009, 31 parts per million, 80 micrograms per dry standard cubic meter, and~~
- (B) ~~on or after April 28, 2009, 29 parts per million. 50 micrograms per dry standard cubic meter. meter, whichever is less stringent.~~

Compliance with this Subparagraph shall be determined by averaging emissions over ~~a one-hour period~~ three one hour test runs, with paired data set for percent reduction and correction to seven percent oxygen.

- (9) Lead Emissions.
- (A) ~~Emissions of lead from each class I municipal waste combustor shall not exceed 0.49 milligrams per dry standard cubic meter, corrected to seven percent oxygen.~~
 - (B) ~~Emissions of lead from each large municipal waste combustor shall not exceed 0.49 milligrams per dry standard cubic meter, corrected to seven percent oxygen, by August 1, 2000 and shall not exceed 0.44 milligrams per dry standard cubic meter, and corrected to seven percent oxygen by August 1, 2002. exceed, as determined by Reference Method 29 of 40 CFR Part 60 Appendix A-8:~~
 - (A) before April 28, 2009, 440 micrograms, per dry standard cubic meter and corrected to seven percent oxygen, and
 - (B) on or after April 28, 2009, 400 micrograms per dry standard cubic meter and corrected to seven percent oxygen.
- (10) Cadmium Emissions. Emissions of cadmium from each municipal waste combustor shall not exceed, as determined by Reference Method 29 of 40 CFR Part 60 Appendix A-8, ~~0.040 milligrams per dry standard cubic meter, corrected to seven percent oxygen.~~
- (A) before April 28, 2009, 40 micrograms per dry standard cubic meter and corrected to seven percent oxygen, and
 - (B) on or after April 28, 2009, 35 micrograms per dry standard cubic meter and corrected to seven percent oxygen.
- (11) Dioxins and Furans. Emissions of dioxins and furans from each municipal waste ~~combustor shall not exceed:~~ combustor:
- (A) that ~~employ~~ employs electrostatic precipitator-based emission control system, shall not exceed before April 28, 2009, 60 nanograms and shall not exceed on or after April 28, 2009, 35 nanograms per dry standard cubic meter (total mass) (total mass dioxins and furans) per dry standard cubic meter (total mass dioxins and furans) corrected to seven percent oxygen for facilities that employ an electrostatic precipitator-based emission control system, or
 - (B) that does not employ an electrostatic precipitator-based emission control system, shall not exceed 30 nanograms per dry standard cubic meter (total mass) (total mass dioxins and furans) corrected to seven percent oxygen for facilities that do not employ an electrostatic precipitator-based emission control system.

Compliance with this Subparagraph shall be determined by averaging emissions over three test runs with a minimum four hour run duration, performed in accordance with

Reference Method 23 of 40 CFR Part 60 Appendix A-7, and corrected to seven percent oxygen.

(12) Fugitive Ash.

(A) On or after the date on which the initial performance test is completed, no owner or operator of a municipal waste combustor shall cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of five percent of the observation period (i.e., nine minutes per three-hour block period), as determined by visible emission observations using EPA Reference Method Reference Method 22 of 40 CFR 60 Appendix A-7, observations as specified in 40 CFR 60.58b(k), except as provided in Part (B) of this Subparagraph. Compliance with this Part shall be determined from at least three 1-hour observation periods when the facility transfers [] ash from the municipal waste combustion unit to the area where the fugitive ash is stored or loaded into containers or trucks.

(B) The emission limit specified in Part (A) of this Subparagraph covers visible emissions discharged to the atmosphere from buildings or enclosures, not the visible emissions discharged inside of the building or enclosures, of ash conveying systems.

(13) Toxic Emissions. The owner or operator of a municipal waste combustor 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 are annual average ambient air quality ~~standards, 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: ~~pressure, and which are increments above background concentrations, shall apply aggregately to all incinerators at a facility subject to this Rule:~~

- ~~(i)~~ (i) arsenic and its compounds ~~2.3x10⁻⁷~~ 2.3x10⁻⁷,
- ~~(ii)~~ (ii) beryllium and its compounds ~~4.1x10⁻⁶~~ 4.1x10⁻⁶,
- ~~(iii)~~ (iii) cadmium and its compounds ~~5.5x10⁻⁶~~ 5.5x10⁻⁶, and
- ~~(iv)~~ (iv) chromium (VI) and its compounds ~~8.3x10⁻⁸~~ 8.3x10⁻⁸.

These are increments above background concentrations and shall apply aggregately to all incinerators at a facility subject to this Rule.

(B) The owner or operator of a facility with incinerators subject to this Rule shall demonstrate compliance with the ambient standards of ~~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 good engineering practice stack height 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 as their allowable emission limits unless Rule .0524, .1110, or .1111 of this Subchapter requires more restrictive rates.

(15) The emission standards of Subparagraphs (1) through ~~(4)~~ (14) of this Paragraph shall apply at all times except during periods of municipal waste combustion unit startup, shutdown, or malfunction that last no more than three hours.

(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 applies apply.

(2) Each municipal waste combustor shall meet the following operational standards:

(A) The concentration of carbon monoxide at the municipal waste combustor outlet shall not exceed the applicable emissions level contained in concentration in:

- (i) table Table 3 of 40 CFR 60.34b(a) for large municipal waste combustors to Subpart Cb of Part 60 "Municipal Waste Combustor Operating Guidelines." The municipal waste combustor technology named in this table is defined in 40 CFR 60.51b; and
- (ii) table 5 of 40 CFR 60 Subpart BBBB. The municipal waste combustor technology named in this table is defined in 40 CFR 60.1940.

(B) The load level shall not exceed 110 percent of the maximum demonstrated municipal waste combustor unit load ~~(four-hour block average).~~ determined from the highest 4-hour block arithmetic average achieved during four consecutive hours in the course of the most recent dioxins and furans stack test that demonstrates compliance with the emission limits of Paragraph (c) of this rule.

(C) The combustor operating temperature at which the combustor operates measured at each the particulate matter control device inlet shall not exceed 63 degrees F above the maximum demonstrated particulate matter control device temperature ~~(four-hour block average).~~ from the highest 4-hour block arithmetic average measured at the inlet of the particulate matter control device during four consecutive hours in the course of the most recent dioxins and furans stack test that demonstrates compliance with the emission limits of Paragraph (c) of this rule.

- (D) The owner or operator of a municipal waste combustor with activated carbon control system to control dioxins and furans or mercury emissions shall maintain an eight-hour block average carbon feed rate at or above the highest average level established during the most recent dioxins and furans or mercury ~~test~~ test and shall evaluate total carbon usage for each calendar quarter. The total amount of carbon purchased and delivered to the municipal waste combustor shall be at or above the required quarterly usage of carbon and shall be calculated as specified in equation four or five in 40 CFR 60.1935(f).
- (E) The owner or operator of a municipal waste combustor shall be exempted from limits on load level, temperature at the inlet of the particular matter control device, and carbon feed rate during:
- (i) the annual tests for dioxins and furans;
 - (ii) the annual mercury tests for carbon feed requirements only;
 - (iii) the two weeks preceding the annual tests for dioxins and furans; and
 - (iv) the two weeks preceding the annual mercury tests (for carbon feed rate requirements only); and
 - ~~(v) any activities to improve the performance of the municipal waste combustor or its emission control including performance evaluations and diagnostic or new technology testing.~~
- ~~(F) The Director shall exempt the owner or operator of a municipal waste combustor from limits on load level, temperature at the inlet of the particular matter control device, and carbon feed rate when the Director approves test activities to:~~
- ~~(i) evaluate system performance,~~
 - ~~(ii) test new technology or control technology,~~
 - ~~(iii) perform diagnostic testing;~~
 - ~~(iv) perform other activities to improve the performance; or~~
 - ~~(v) perform other activities to advance the state of the art for emissions controls.~~
- ~~(3) Except during start-up where the procedure has been approved according to Rule .0535(g) of this Subchapter, waste material shall not be loaded into any incinerator subject to this Rule when the temperature is below the minimum required temperature. Start-up procedures may be determined on a case-by-case basis according to Rule .0535(g) of this Subchapter and Subparagraph (4) of this Paragraph. Incinerators subject to this Rule shall have automatic auxiliary burners that are capable of maintaining the required minimum temperature in the secondary chamber excluding the heat content of the wastes.~~

- ~~(3)~~ (4) The operational standards of this Paragraph apply at all times except during periods of municipal waste combustor startup, shutdown, or malfunction that last no more ~~than than:~~
- ~~(A)~~ ~~three hours for Class I combustors; or~~
 - ~~(B)~~ ~~three hours, hours except as specified in 60.58b(a)(1)(iii) for large municipal waste combustors.~~ with the following exception: For the purpose of compliance with the carbon monoxide emission limits in Subparagraph (2) of this Paragraph, if a loss of boiler water level control (e.g., boiler waterwall tube failure) or a loss of combustion air control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction according to 15A NCAC 2D .0536, the duration of the malfunction period is limited to 15 hours per occurrence. During such periods of malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of Paragraph (f) of this Rule.

(e) Test Methods and Procedures.

- (1) The test methods and procedures described in 15A NCAC 02D .0501 and in Parts (A) through (K) of this Subparagraph shall be used to show compliance:
 - ~~(A)~~ 40 CFR 60.58b(b) for continuous emissions monitoring of oxygen or carbon monoxide at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides are monitored;
 - ~~(B)~~ 40 CFR 60.58b(c) for determination of compliance with particulate emission limits;
 - ~~(C)~~ 40 CFR 60.58b(d) for determination of compliance with emission limits for cadmium, lead and mercury;
 - ~~(D)~~ 40 CFR 60.58b(e) for determination of compliance with sulfur dioxide emission limits from continuous emissions monitoring data;
 - ~~(E)~~ 40 CFR 60.58b(f) for determination of compliance with hydrogen chloride emission limits;
 - ~~(F)~~ 40 CFR 60.58b(g) for determination of compliance with dioxin/furan emission limits;
 - ~~(G)~~ 40 CFR 60.58b(h) for determination of compliance with nitrogen oxides limits from continuous emission monitoring data;
 - ~~(H)~~ 40 CFR 60.58b(i) for determination of compliance with operating requirements under Paragraph (d);
 - ~~(I)~~ 40 CFR 60.58b(j) for determination of municipal waste combustor unit capacity;
 - ~~(J)~~ 40 CFR 60.58b(k) for determination of compliance with the fugitive ash emission limit; and

- (K) 40 CFR 60.58b(m)(1) to determine parametric monitoring for carbon injection control systems.
- ~~(2) Rule .0501 of this Subchapter and in Method 29 of 40 CFR Part 60 Appendix A-8 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 only to collect sample for chromium (VI), and SW 846 Method 0060 shall be used for the analysis.~~
- ~~(3) The owner or operator will conduct initial [] stack tests to measure the emission levels of dioxins and furans, cadmium, lead, mercury, beryllium, arsenic, chromium (VI), particulate matter, opacity, hydrogen chloride, and fugitive ash. Annual stack tests for the same pollutants will be conducted no later than 12 months after the previous stack test. Annual stack tests for the same pollutants except beryllium, arsenic, and chromium (VI) will be conducted no less than 9 months and no more than 15 months since the previous test and must complete five performance tests in each 5-year calendar period.~~
- ~~(2) The owner or operator of a large municipal waste combustor shall do compliance and performance testing according to 40 CFR 60.58b.~~
- ~~(3) For large municipal waste combustors that achieve a dioxin and furan emission level less than or equal to 15 nanograms per dry standard cubic meter total mass, corrected to seven percent oxygen, the performance testing shall be performed according to the testing schedule specified in 40 CFR 60.58b(g)(5)(iii). For class I municipal waste combustors the performance testing shall be performed according to the testing schedule specified in 40 CFR 60.1785 to demonstrate compliance with the applicable emission standards in Paragraph (c) of this Rule.~~
- ~~(4) The testing frequency for dioxin and furan may be reduced if the conditions under 40 CFR 60.58b(g)(5)(iii) are met and the owner or operator notifies the Director of the intent to begin the reduced dioxin and furan performance testing schedule during the following calendar year.~~
- ~~(5) The owner or operator of an affected facility may request that compliance with the dioxin and furan emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).~~
- ~~(6)(4) The Director may require the owner or operator of any incinerator subject to this Rule to test his incinerator to demonstrate compliance with the emission standards 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 a~~ municipal waste combustor shall comply with the monitoring, recordkeeping, and reporting requirements established pursuant to Section .0600 of this Subchapter.
- (2) The owner or operator of ~~an incinerator~~ a municipal waste combustor 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.
- (3) The owner or operator of a municipal waste combustor shall:
 - (A) install, calibrate, operate, and maintain, for each municipal waste combustor, continuous emission monitors to ~~determine; determine the following:~~
 - (i) ~~opacity according to 40 CFR 60.58b(e) 60.58b for large municipal waste combustors and 40 CFR 60.1720 for class I municipal waste combustors;~~
 - (ii)(i) sulfur dioxide ~~emissions; concentration; according to 40 CFR 60.58b(e) 60.58b for large municipal waste combustors and 40 CFR 60.1720 for class I municipal waste combustors;~~
 - (ii)(ii) nitrogen oxides ~~emissions; concentration; according to 40 CFR 60.58b(h) 60.58b for large municipal waste combustors and 40 CFR 60.1720 for class I municipal waste combustors; and~~
 - (iv) oxygen or carbon dioxide ~~emissions; concentration; according to 40 CFR 60.58b(b) 60.58b for large municipal waste combustors and 40 CFR 60.1720 for class I municipal waste combustors;~~
 - (v) ~~temperature level in the primary chamber and, where there is a secondary chamber, in the secondary chamber;~~
 - (v) opacity according to 40 CFR 60.58b(c); and
 - (vi) carbon monoxide at the combustor outlet and record the output of the system and shall follow the procedures and methods specified in 40 CFR 60.58b(i)(3).
 - (B) monitor the load level of each municipal waste combustor according to 40 CFR 60.58b(i)(6); each class I municipal waste combustor according to 40 CFR 60.1810;
 - (C) monitor the temperature of each municipal waste combustor ~~the gases~~ flue gases at the inlet of the particulate matter air pollution control device according to 40 CFR 60.58b(i)(7); 60.1815;
 - (D) monitor carbon feed rate of each municipal waste combustor carbon delivery system and total plant predicted quarterly usage if activated carbon is used to

abate dioxins and furans or mercury emissions according to 40 CFR

60.58b(m)(2) and (m)(3); 60.1820;

- (E) maintain records of the information listed in 40 CFR 60.59b(d)(1) through (d)(15) ~~for large municipal waste combustors and in 40 CFR 60.1840 through 1855 for class I municipal waste combustors~~ for a period of at least five years;
- ~~(F)~~ following the initial compliance tests as required under Paragraph (e) of this Rule, ~~submit the information specified in 40 CFR 60.59b(f)(1) through (f)(6) for large municipal waste combustors and in 40 CFR 60.1875 for class I municipal waste combustors, in the initial performance test report;~~
- ~~(F)(G)~~ following the first year of municipal combustor operation, submit an annual report specified in 40 CFR 60.59b(g) for large municipal waste combustors ~~and in 40 CFR 60.1885 for class I municipal waste combustors, as applicable,~~ no later than February 1 of each year following the calendar year in which the data were collected. Once the unit is subject to permitting requirements under 15A NCAC 02Q .0500, Title V Procedures, the owner or operator of an affected facility shall submit these reports semiannually; and
- ~~(H)(G)~~ submit a semiannual report specified in 40 CFR 60.59b(h) for large municipal waste combustors ~~and in 40 CFR 60.1900 for class I municipal waste combustors,~~ for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified in this Section, according to the schedule specified in 40 CFR 60.59b(h)(6).

(g) Excess Emissions and Start-up and Shut-down. All municipal waste combustors subject to this Rule shall comply with Rule .0535, Excess Emissions Reporting and Malfunctions, of this Subchapter.

(h) Operator Training and Certification.

~~(1)~~ By January 1, 2000, or six months after the date of start-up of a class I municipal waste combustor, whichever is later, and by July 1, 1999 or six months after the date of start-up of a large municipal waste combustor, whichever is later:

~~(1)(A)~~ Each chief facility operator and shift supervisor of a municipal waste combustor shall obtain and maintain a current provisional operator certification within six months after he transfers to the municipal waste combustion unit or six months after he is hired to work at the municipal waste combustor unit. ~~from the American Society of Mechanical Engineers (ASME QRO-1-1994).~~

~~(2)~~ Each chief facility operator and shift supervisor shall obtain a full certification or be scheduled to take the certification exam within six months after he transfers to the municipal waste combustion unit or six months after he is hired to work at the municipal waste combustor unit.

- ~~(3)(B)~~ Each facility operator and shift supervisor of a municipal waste combustor shall have completed full certification exam or shall have scheduled a full certification exam with the American Society of Mechanical Engineers (ASME QRO-1-1994).
- ~~(4)(C)~~ The owner or operator of a municipal waste combustor plant shall not allow the facility to be operated at any time unless one of the following persons is on duty at the affected facility:
- ~~(A)(i)~~ a fully certified chief facility operator;
 - ~~(B)(ii)~~ a provisionally certified chief facility operator who is scheduled to take the full certification exam; ~~exam according to the schedule specified in Part (B) of this Subparagraph;~~
 - ~~(C)(iii)~~ a fully certified shift supervisor; or
 - ~~(D)(iv)~~ a provisionally certified shift supervisor who is scheduled to take the full certification exam. ~~exam according to the schedule specified in Part (B) of this Subparagraph.~~
- ~~(5)(D)~~ If one of the persons listed in this Subparagraph leaves the certified chief facility operator and certified shift supervisor are both unavailable, the large municipal waste combustor during his operating shift, a provisionally certified control room operator who is scheduled to take the full certification exam, who is onsite at the affected facility may fulfill the requirements of this Subparagraph. ~~Part.~~
- ~~(E)~~ If one of the persons listed in this Subparagraph leaves the class I municipal waste combustor during his operating shift, a provisionally certified control room operator who is onsite at the affected facility may fulfill the requirements specified in 40 CFR 60.1685.
- ~~(6)~~ All chief facility operators, shift supervisors, and control room operators shall complete the EPA municipal waste combustor training course. This requirement does not apply to chief facility operators, shift supervisors, and control room operators who have obtained full certification from the American Society of Mechanical Engineers on or before July 1, 1998. Furthermore, the owner or operator may request that the Director waive the requirement for chief facility operators, shift supervisors, and control room operators who have obtained provisional certification from the American Society of Mechanical Engineers on or before July 1, 1998.

~~(i)~~ Training

- ~~(1)(2)~~ The owner or operator of each municipal waste combustor shall develop and update on a yearly basis a site-specific operating manual that shall at the minimum address the elements of municipal waste combustor unit operation specified in 40 CFR 60.54b(e)(1) through (e)(11). The operating manual shall be kept in a readily accessible location for all persons required to undergo training under Subparagraph (2) of this Paragraph.

The operating manual and records of training shall be available for inspection by the personnel of the Division on request.

- ~~(2)(3)~~ By July 1, 1999, or six ~~Six~~ months after the date of start-up of a municipal waste combustor, whichever is later, the The owner or operator of the municipal waste combustor plant shall establish a training program to review the operating manual according to the schedule specified in Parts (A) and (B) of this Subparagraph with each person who has responsibilities affecting the operation of the facility including chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane and load handlers; comply with the following requirements:
- (A) A date prior to the day when the person assumes responsibilities affecting municipal waste combustor unit operation; and
- (B) Annually, following the initial training required by Part (A) of this Subparagraph.
- ~~(A) All chief facility operators, shift supervisors, and control room operators shall complete the EPA municipal waste combustor training course.~~
- ~~(i) The requirements specified in Part (A) of this Subparagraph shall not apply to chief facility operators, shift supervisors and control room operators who have obtained full certification from the American Society of Mechanical Engineers on or before July 1, 1998.~~
- ~~(ii) As provided under 40 CFR 60.39b(c)(4)(iii)(B), the owner or operator may request that the Administrator waive the requirement specified in Part (A) of this Subparagraph for the chief facility operators, shift supervisors, and control room operators who have obtained provisional certification from the American Society of Mechanical Engineers on or before July 1, 1998.~~
- ~~(B) The owner or operator of each municipal waste combustor shall establish a training program to review the operating manual, according to the schedule specified in Subparts (i) and (ii) of this Part, with each person who has responsibilities affecting the operation of an affected facility, including the chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane load handlers.~~
- ~~(i) Each person specified in Part (B) of this Subparagraph shall undergo initial training no later than the date specified in Items (I) through (III)(II) of this Subpart, whichever is later.~~
- ~~(I) The date six months after the date of start-up of the affected facility; or~~
- ~~(II) July 1, 1999; or~~

~~(III)(II)~~ — A date prior to the day when the person assumes responsibilities affecting municipal waste combustor unit operation.

~~(ii)~~ — Annually, following the initial training required by Subpart (i) of this Part.

~~(C)~~ — The operating manual required by Subparagraph (2) of this Paragraph shall be updated continually and be kept in a readily accessible location for all persons required to undergo training under Part (B) of this Subparagraph. The operating manual and records of training shall be available for inspection by the personnel of the Division on request.

~~(D)~~ — The operating manual of class I municipal waste combustors shall contain requirements specified in 40 CFR 60.1665 in addition to requirements of Part (C) of this Subparagraph.

~~(4)~~ — The referenced ASME exam in this Paragraph is hereby incorporated by reference and includes subsequent amendments and editions. Copies of the referenced ASME exam may be obtained from the American Society of Mechanical Engineers (ASME), 22 Law Drive, Fairfield, NJ 07007, at a cost of forty nine dollars (\$49.00).

~~(i) Compliance Schedules:~~

~~(1)~~ — The owner or operator of a large municipal waste combustor shall choose one of the following three compliance schedule options:

~~(A)~~ — comply with all the requirements or close before August 1, 2000;

~~(B)~~ — comply with all the requirements before three years following the date of issuance of a revised construction and operation permit, if permit modification is required, or after August 1, 2000, but before August 1, 2002, if a permit modification is not required. If this option is chosen, then the owner or operator of the facility shall submit to the Director measurable and enforceable incremental steps of progress towards compliance which include:

~~(i)~~ — a date by which contracts for the emission control system or equipment shall be awarded or orders issued for purchase of component parts;

~~(ii)~~ — a date by which on site construction, installation, or modification of emission control equipment shall begin;

~~(iii)~~ — a date by which on site construction, installation, or modification of emission control equipment shall be completed;

~~(iv)~~ — a date for initial start-up of emissions control equipment;

~~(v)~~ — a date for initial performance test(s) of emission control equipment; and

~~(vi)~~ — a date by which the municipal waste combustor shall be in compliance with this Rule, which shall be no later than three years from the issuance of the permit; or

- ~~(C) — close between August 1, 2000, and August 1, 2002. If this option is chosen then the owner or operator of the facility shall submit to the Director a closure agreement which includes the date of the plant closure.~~
- ~~(2) — All large municipal waste combustors for which construction, modification, or reconstruction commenced after June 26, 1987, but before September 19, 1994, shall comply with the emission limit for mercury specified in Subparagraph (c)(8) of this Rule and the emission limit for dioxin and furan specified in Subparagraph (c)(11) of this Rule within one year following issuance of a revised construction and operation permit, if a permit modification is required, or by August 1, 2000, whichever is later.~~
- ~~(3) — The owner or operator of a class I municipal waste combustor shall choose one of the following four compliance schedule options:~~
- ~~(A) — comply with all requirements of this Rule beginning July 1, 2002;~~
- ~~(B) — comply with all requirements of this Rule by July 1, 2002 whether a permit modification is required or not. If this option is chosen, then the owner or operator shall submit to the Director along with the permit application if a permit application is needed or by September 1, 2002 if a permit application is not needed a compliance schedule that contains the following increments of progress:~~
- ~~(i) — a final control plan as specified in 40 CFR 60.1610;~~
- ~~(ii) — a date by which contracts for the emission control system or equipment shall be awarded or orders issued for purchase of component parts;~~
- ~~(iii) — a date by which onsite construction, installation, or modernization of emission control system or equipment shall begin;~~
- ~~(iv) — a date by which onsite construction, installation, or modernization of emission control system or equipment shall be completed; and~~
- ~~(v) — a date by which the municipal waste combustor shall be in compliance with this Rule, which shall be no later no later than December 1, 2004;~~
- ~~(C) — comply with all requirements of this Rule by closing the combustor by July 1, 2002 and then reopening it. If this option is chosen the owner or operator shall:~~
- ~~(i) — meet increments of progress specified in 40 CFR 60.1585, if the class I combustor is closed and then reopened prior to the final compliance date; and~~
- ~~(ii) — complete emissions control retrofit and meet the emission limits and good combustion practices on the date that the class I combustor reopens operation if the class I combustor is closed and then reopened after the final compliance date; or~~

- ~~(D) — comply by permanently closing the combustor. If this option is chosen the owner or operator shall:~~
- ~~(i) — submit a closure notification, including the date of closure, to the Director by July 1, 2002 if the class I combustor is to be closed on or before September 1, 2002; or~~
 - ~~(ii) — enter into a legally binding closure agreement with the Director by July 1, 2002 if the class I combustor is to be closed after September 1, 2002, and the combustor shall be closed no later than December 1, 2004.~~
- ~~(4) — The owner or operator of a class I municipal waste combustor that began construction, reconstruction or modification after June 26, 1987 shall comply with the emission limit for mercury specified in Subparagraph (c)(8) of this Rule and the emission limit for dioxin and furan specified in Part (c)(11)(B) of this Rule by July 1, 2002.~~
- ~~(5) — The owner or operator of any municipal waste combustor shall certify to the Director within five days after the deadline, for each increment of progress, whether the required increment of progress has been met.~~

(j) The referenced ASME exam in this Paragraph is hereby incorporated by reference and includes subsequent amendments and editions. Copies of the referenced ASME exam may be obtained from the American Society of Mechanical Engineers (ASME), 22 Law Drive, Fairfield, NJ 07007.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(3),(4),(5); 40 CFR 60.35b; 40 CFR 60.34e; 40 CFR 60.1515;
Eff. October 1, 1991;
Amended Eff. July 1, 2000; July 1, 1999; July 1, 1998; July 1, 1996; April 1, 1995;
Temporary Amendment Eff. March 1, 2002;
Amended Eff. August 1, 2002;
Temporary Amendment Eff. March 1, 2003;
Temporary Amendment Expired December 12, 2003;
Amended Eff. _____; April 1, 2004.

15A NCAC 02D .1212 SMALL MUNICIPAL WASTE COMBUSTORS

(a) Applicability. This Rule applies to Class I municipal waste combustors, as defined in Rule .1202 of this Section.

(b) Definitions. For the purpose of this Rule, the definitions contained in 40 CFR 60.1940 (except administrator means the Director of the Division of Air Quality) 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 any municipal waste combustor subject to the requirements of this Rule except where Rule .0524, .1110, or .1111 of this Subchapter applies. However, when Subparagraphs (13) or (14) of this Paragraph and Rule .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. Emissions of particulate matter from each municipal waste combustor shall not exceed 27 milligrams per dry standard cubic meter corrected to seven percent oxygen.
- (3) Visible Emissions. The emission limit for opacity from each class I municipal waste combustor shall not exceed 10 percent (average of 30 six-minute averages).
- (4) Sulfur Dioxide. Emissions of sulfur dioxide from each class I municipal waste combustor shall not exceed 31 parts per million by volume, dry basis, or potential sulfur dioxide emissions shall be reduced by at least 75 percent volume, dry ~~basis.~~ basis, whichever is less stringent. Percent reduction shall be determined from continuous emissions monitoring data and in accordance with reference method 19, Section 12.5.4 of 40 CFR Part 60, Appendix A-7. Compliance with either standard is based on a 24-hour daily block geometric average of concentration data corrected to seven percent oxygen.
- (5) Nitrogen Oxide. Emissions of nitrogen oxide from each class I municipal waste combustor shall not exceed the emission limits in Table 3 of 40 CFR Part 60, Subpart BBBB.
- (6) Odorous Emissions. Any incinerator subject to this Rule shall comply with Rule .1806 of this Subchapter for the control of odorous emissions.
- (7) Hydrogen Chloride. Emissions of hydrogen chloride from each class I municipal waste combustor shall not exceed 31 milligrams per dry standard cubic meter (31 parts per million by weight as determined by reference method 26 or 26A of 40 CFR Part 60, Appendix A-8) or potential hydrogen chloride emissions shall be reduced by at least 95 percent of the mass concentration, dry ~~basis.~~ basis, whichever is less stringent.

Compliance with this Part shall be determined by averaging emissions over three one-hour test runs, with paired data sets for percent reduction and correction to seven percent oxygen.

- (8) Mercury Emissions. Emissions of mercury from each municipal waste combustor shall not exceed 0.080 milligrams per dry standard cubic meter (as determined by reference method 29 of 40 CFR Part 60, Appendix A-8) or potential mercury emissions shall be reduced by at least 85 percent of the mass concentration, ~~basis~~, basis, whichever is less stringent. Compliance with this Part shall be determined by averaging emissions over three one-hour test runs, with paired data sets for percent reduction and correction to seven percent oxygen.
- (9) Lead Emissions. Emissions of lead from each class I municipal waste combustor shall not exceed 0.490 milligrams per dry standard cubic meter and corrected to seven percent oxygen (as determined by reference method 29 of 40 CFR Part 60, Appendix A-8).
- (10) Cadmium Emissions. Emissions of cadmium from each municipal waste combustor shall not exceed 0.040 milligrams per dry standard cubic meter, corrected to seven percent oxygen (as determined by reference method 29 of 40 CFR Part 60, Appendix A-8).
- (11) Dioxins and Furans. Emissions of dioxins and furans from each municipal waste combustor shall not exceed:
- (A) 60 nanograms per dry standard cubic meter (total mass) for facilities that employ an electrostatic precipitator-based emission control system, or
 - (B) 30 nanograms per dry standard cubic meter (total mass) for facilities that do not employ an electrostatic precipitator-based emission control system.
- Compliance with this Subparagraph shall be determined by averaging emissions over three test runs with a minimum four hour run duration, performed in accordance with reference method 23 of 40 CFR Part 60, Appendix A-7, and corrected to seven percent oxygen.
- (12) Fugitive Ash.
- (A) On or after the date on which the initial performance test is completed, no owner or operator of a municipal waste combustor shall cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of five percent of the observation period as determined by reference method 22 (40 CFR Part 60, Appendix A-7), except as provided in Part (B) of this Subparagraph. Compliance with this Part shall be determined from at least three 1-hour observation periods when the facility transfers fugitive ash from the municipal waste combustion unit to the area where the fugitive ash is stored or loaded into containers or trucks.

(B) The emission limit specified in Part (A) of this Subparagraph covers visible emissions discharged to the atmosphere from buildings or enclosures, not the visible emissions discharged inside of the building or enclosures, of ash conveying systems.

(13) Toxic Emissions. The owner or operator of a municipal waste combustor shall demonstrate compliance with Section .1100 of this Subchapter in accordance with 15A NCAC 02Q .0700.

(14) Ambient Standards.

(A) In addition to the ambient air quality standards in Section .0400 of this Subchapter, the following annual average ambient air quality standards in milligrams per cubic meter (77 degrees Fahrenheit, 25 degrees Celsius, and 29.92 inches, 760 millimeters of mercury pressure):

arsenic and its compounds	2.3×10^{-7}
beryllium and its compounds	4.1×10^{-6}
cadmium and its compounds	5.5×10^{-6}
chromium (VI) and its compounds	8.3×10^{-8}

These are increments above background concentrations and shall apply aggregately to all ~~incinerators at a facility~~ municipal waste combustors at a facility.

(B) The owner or operator of a facility with incinerators subject to this Rule shall demonstrate compliance with the ambient standards of Part (A) of this Subparagraph by following the procedures set out in Rule .1106 of this Subchapter. Modeling demonstrations shall comply with the good engineering practice stack height 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 as their allowable emission limits unless Rule .0524, .1110, or .1111 of this Subchapter requires more restrictive rates.

(15) The emission standards of Subparagraphs (1) through (14) of this Paragraph shall apply at all times except during periods of municipal waste combustion unit startup, shutdown, or malfunction that last no more than three hours.

(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 municipal waste combustor shall meet the following operational standards:

- (A) The concentration of carbon monoxide at the municipal waste combustor outlet shall not exceed the concentration in table 5 of 40 CFR Part 60, Subpart BBBB for each municipal waste combustor. The municipal waste combustor technology named in this table is defined in 40 CFR 60.1940.
 - (B) The load level shall not exceed 110 percent of the maximum demonstrated municipal waste combustor unit load determined from the highest four-hour block arithmetic average achieved during four consecutive hours in the course of the most recent dioxins and furans stack test that demonstrates compliance with the emission limits of Paragraph (c) of this Rule.
 - (C) The temperature at which the combustor operates measured at the particulate matter control device inlet shall not exceed 63 degrees F above the maximum demonstrated particulate matter control device temperature determined from the highest 4-hour block arithmetic average measured at the inlet of the particulate matter control device during four consecutive hours in the course of the most recent dioxins and furans stack test that demonstrates compliance with the emission limits of Paragraph (c) of this rule.
 - (D) The owner or operator of a municipal waste combustor with activated carbon control system to control dioxins and furans or mercury emissions shall maintain an eight-hour block average carbon feed rate at or above the highest average level established during the most recent dioxins and furans or mercury test.
 - (E) The owner or operator of a municipal waste combustor shall be exempted from limits on load level, temperature at the inlet of the particular matter control device, and carbon feed rate during the annual tests for dioxins and furans, the annual mercury tests (for carbon feed requirements only), the two weeks preceding the annual tests for dioxins and furans, and the two weeks preceding the annual mercury tests (for carbon feed rate requirements only).
 - (F) The owner or operator of a municipal waste combustor shall be exempted from limits on load level, temperature at the inlet of the particular matter control device, and carbon feed rate when the Director approves for any activities to evaluate system performance, test new technology or control technology, perform diagnostic testing, perform other activities to improve the performance, or perform other activities to advance the state of the art for emissions controls.
- (3) The operational standards of this Paragraph apply at all times except during periods of municipal waste combustor startup, shutdown, or malfunction that last no more than three hours.
- (e) Test Methods and Procedures.

- (1) References contained in Table 8 of 40 CFR Part 60, Subpart BBBB will be used to determine the sampling location, pollutant concentrations, number of traverse points, individual test methods, and other specific testing requirements for the different pollutants.
- (2) Stack tests for all the pollutants will consist of at least three test runs, as specified in 40 CFR 60.8 and use the average of the pollutant emission concentrations from the three test runs to determine compliance with the applicable emission limits of Paragraph (c).
- (3) An oxygen (or carbon dioxide) measurement will be obtained at the same time as pollutant measurements to determine diluent gas levels, as specified in 40 CFR 60.1720.
- (4) The equations in 40 CFR 60.1935 will be used to calculate emission levels at 7 percent oxygen (or an equivalent carbon dioxide basis), the percent reduction in potential hydrogen chloride emissions, and the reduction efficiency for mercury emissions. Other required equations are contained in individual test methods specified in Table 6 of 40 CFR Part 60, Subpart BBBB.
- (5) The owner or operator may apply to the Director for approval under 40 CFR 60.8(b) to use a reference method with minor changes in methodology, use an equivalent method, use an alternative method the results of which the Director has determined are adequate for demonstrating compliance, waive the requirement for a performance test because you have demonstrated by other means that you are in compliance, or use a shorter sampling time or smaller sampling volume.
- (6) The test methods and procedures described in 15A NCAC 02D .0501, 40 CFR Part 60, Appendix A and 40 CFR Part 61, Appendix B shall be used to determine compliance with emission standards in Paragraph(c) according to table 8 of 40 CFR Part 60, Subpart BBBB.
- (7) Method 29 of 40 CFR Part 60, Appendix A-8 shall be used to determine emission rates for metals for toxic evaluations except for chromium (VI). Method 29 shall be used only to collect samples and SW 846 Method 0060 shall be used to analyze the samples of chromium(VI).
- (8) The owner or operator will conduct initial ~~and annual~~ stack tests to measure the emission levels of dioxins and furans, cadmium, lead, mercury, beryllium, arsenic, chromium (VI), particulate matter, opacity, hydrogen chloride, and fugitive ash. Annual stack tests for the same pollutants except beryllium, arsenic, chromium (VI) will be conducted no later than 13 months after the previous stack test.
- (9) The owner or operator must use results of stack tests for dioxins and furans, cadmium, lead, mercury, beryllium, arsenic, chromium (VI), particulate matter, opacity, hydrogen chloride, and fugitive ash to demonstrate compliance with the applicable emission limits in this rule except for carbon monoxide, nitrogen oxides, and sulfur dioxide.

- (10) The owner or operator must use results of continuous emissions monitoring of carbon monoxide, nitrogen oxides, and sulfur dioxide to demonstrate compliance with the applicable emission limits in this rule.
 - (11) The testing frequency for dioxin and furan may be reduced if the conditions under 40 CFR 60.1795(b) are met.
 - (12) The Director may require the owner or operator of any incinerator subject to this Rule to test his incinerator to demonstrate compliance with the emission standards in Paragraph (c) of this Rule.
- (f) Monitoring, Recordkeeping, and Reporting.
- (1) The owner or operator shall comply with the monitoring, recordkeeping, and reporting requirements developed pursuant to Section .0600 of this Subchapter.
 - (2) The owner or operator that has installed air pollution abatement equipment to reduce emissions of hydrogen chloride shall install, operate, and maintain continuous parametric monitoring equipment to measure pH for wet scrubber systems and rate of alkaline injection for dry scrubber systems.
 - (3) The owner or operator shall:
 - (A) install, calibrate, operate, and maintain, for each municipal waste combustor, continuous emission monitors to determine opacity, sulfur dioxide emissions, nitrogen oxides emissions, and oxygen or carbon dioxide according to 40 CFR 60.1715 through 60.1770;
 - (B) monitor load level of each class I municipal waste combustor according to 40 CFR 60.1810 and 60.1825;
 - (C) monitor temperature of the flue gases at the inlet of the particulate matter air pollution control device according to 40 CFR 60.1815 and 60.1825;
 - (D) monitor carbon feed rate if activated carbon is used to abate dioxins and furans or mercury emissions according to 40 CFR 60.1820 and 60.1825;
 - (E) maintain records of the information listed in 40 CFR 60.1830 through 60.1855 for a period of at least five years;
 - (F) following the first year of municipal combustor operation, submit an annual report specified in 40 CFR 60.1885, no later than February 1 of each year following the calendar year in which the data were collected. Once the unit is subject to permitting requirements under 15A NCAC 02Q .0500, Title V Procedures, the owner or operator of an affected facility shall submit these reports semiannually; and
 - (H) submit a semiannual report any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified in this Section according to the schedule specified in 40 CFR 60.1895.

(g) Excess Emissions and Start-up and Shut-down. All municipal waste combustors subject to this Rule shall comply with Rule .0535, Excess Emissions Reporting and Malfunctions, of this Subchapter.

(h) Operator Certification.

- (1) Each chief facility operator and shift supervisor shall obtain a provisional certification within six months after he transfers to the municipal waste combustion unit or six months after he is hired to work at the municipal waste combustor unit.
- (2) Each chief facility operator and shift supervisor shall obtain a full certification or be scheduled to take the certification exam within six months after he transfers to the municipal waste combustion unit or six months after he is hired to work at the municipal waste combustor unit.
- (3) Each chief facility operator and shift supervisor shall have obtained a full certification or have scheduled a full certification exam with the American Society of Mechanical Engineers (ASME QRO-1-1994).
- (4) The owner or operator of a municipal waste combustor plant shall not allow the facility to be operated at any time unless one of the following persons is on duty at the affected facility:
 - (A) a fully certified chief facility operator;
 - (B) a provisionally certified chief facility operator who is scheduled to take the full certification exam;
 - (C) a fully certified shift supervisor; or
 - (D) a provisionally certified shift supervisor who is scheduled to take the full certification exam.
- (6) If the certified chief facility operator and certified shift supervisor both are unavailable, a provisionally certified control room operator at the municipal waste combustion unit may fulfill the certified operator requirement. Depending on the length of time that a certified chief facility operator and certified shift supervisor are away, one of three criteria shall be met:
 - (A) When the certified chief facility operator and certified shift supervisor are both offsite for 12 hours or less and no other certified operator is on-site, the provisionally certified control room operator may perform those duties without notice to, or approval by the Director.
 - (B) When the certified chief facility operator and certified shift supervisor are offsite for more than 12 hours, but for two weeks or less, and no other certified operator is on-site, the provisionally certified control room operator may perform those duties without notice to, or approval by, the Director. However, you must record the periods when the certified chief facility operator and certified shift supervisor

are offsite and include the information in the annual report as specified under 40 CFR 60.1885(l).

- (C) When the certified chief facility operator and certified shift supervisor are offsite for more than two weeks and no other certified operator is on-site, the provisionally certified control room operator may perform those duties without notice to, or approval by the Director. However, the owner or operator shall notify the Director in writing and submit a status report and corrective action summary to the Director every four weeks following the initial notification. In the notice, the owner or operator shall state what caused the absence and what is being done to ensure that a certified chief facility operator or certified shift supervisor is on-site. If the Director notifies the owner or operators that the status report or corrective action summary is disapproved, the municipal waste combustion unit may continue operation for 90 days, but then shall cease operation. If corrective actions are taken in the 90-day period such that the Director withdraws the disapproval, municipal waste combustion unit operation may continue.
- (D) All chief facility operators, shift supervisors, and control room operators shall complete the EPA operator training course. These employees must complete the operator training course before assuming responsibilities that affect operation of the municipal waste combustion unit. This requirement does not apply to chief facility operators, shift supervisors and control room operators who have obtained full certification from the American Society of Mechanical Engineers on or before July 1, 1998.

(i) Training.

- (1) The owner or operator of each municipal waste combustor shall develop and update on a yearly basis a site-specific operating manual. The manual shall at the minimum address;
 - (A) a summary of all applicable requirements in this subsection,
 - (B) a description of the basic combustion principles that apply to municipal waste combustion units,
 - (C) procedures for receiving, handling, and feeding municipal solid waste.
 - (D) procedures to be followed during periods of startup, shutdown, and malfunction of the municipal waste combustion unit,
 - (E) procedures for maintaining a proper level of combustion air supply,
 - (F) procedures for operating the municipal waste combustion unit in compliance with the requirements contained in 40 CFR 60 Subpart JJJ.
 - (G) procedures for responding to periodic upset or off-specification conditions,
 - (H) procedures for minimizing carryover of particulate matter,
 - (I) procedures for handling ash,

(J) procedures for monitoring emissions from the municipal waste combustion unit,

(K) procedures for recordkeeping and reporting,

The operating manual shall be updated continually and be kept in a readily accessible location for all persons required to undergo training under Subparagraph (2) of this Paragraph. The operating manual and records of training shall be available for inspection by the personnel of the Division on request.

(3) The owner or operator of the municipal waste combustor plant shall establish a training program to review the operating manual according to the schedule specified in Parts (A) and (B) of this Subparagraph with each person who has responsibilities affecting the operation of the facility including chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane and load handlers.

(A) a date prior to the day when the person assumes responsibilities affecting municipal waste combustor unit operation, and

(B) annually, following the initial training required by Part (A) of this Subparagraph.

(j) The referenced ASME exam (ASME QRO-1-1994) in this Paragraph is hereby incorporated by reference and includes subsequent amendments and editions. Copies of the referenced ASME exam may be obtained from the American Society of Mechanical Engineers (ASME), 22 Law Drive, Fairfield, NJ 07007, at a cost of forty nine dollars (\$49.00).

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(3),(4),(5); 40 CFR 60.35b; 40 CFR 60.34e; 40 CFR 60.1515;

Eff. _____.