15A NCAC 02D .1206 is proposed for amendment as follows:

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~~ HMIWIs subject to this Rule except where Rules .0524, .1110, or .1111 of this Subchapter applies. However, when Subparagraphs ~~(13)~~ (6) or ~~(14)~~ (7) 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) Prior to October 6, 2014, each HMIWI for which construction was commenced after June 20, 1996, but no later than December 1, 2008, or for which modification is commenced after March 16, 1998, but no later than April 6, 2010, shall not exceed the requirements listed in Table 1A of Subpart Ce of 40 CFR 60.

(3) On or after October 6, 2014, each HMIWI for which construction was commenced after June 20, 1996 but no later than December 1, 2008, or for which modification is commenced after March 16, 1998

but no later than April 6, 2010, shall not exceed the more stringent of the requirements listed in Table 1B of Subpart Ce and Table 1A of Subpart Ec of 40 CFR 60.

(4) Each small remote HMIWI for which constructed was commenced on or before June 20, 1996, or for which modification was commenced on or before March 16, 1998, and which burns less than 2,000 pounds per week of hospital waste and medical or infectious waste shall not exceed emission standards listed in Table 2A of Subpart Ce of 40 CFR 60 before October 6, 2014. On or after October 6, 2014, each small remote HMIWI shall not exceed emission standards listed in Table 2B of Subpart Ce of 40 CFR 60.

~~(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).~~

(5) Visible Emissions. Prior to October 6, 2014, 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). On or after October 6, 2014, 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 6 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)~~(6) Toxic Emissions. The owner or operator of any ~~incinerator~~ HMIWI subject to this Rule shall demonstrate compliance with Section .1100 of this Subchapter according to 15A NCAC 02Q .0700.

~~(14)~~(7) 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~~ HMIWIs at a facility subject to this Rule:

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

(B) The owner or operator of a facility with ~~incinerators~~ HMIWIs 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~~ HMIWIs 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~~ HMIWI subject to this Rule when applicable operational standards in Rule .0524, .1110, or .1111 of this Subchapter apply.

(2) Annual Equipment Inspection.

(A) Each ~~small remote~~ HMIWI shall ~~have an initial equipment inspection by July 1, 2000,~~ undergo an equipment inspection initially within six months upon this Rule's effective date and an annual equipment inspection ~~each year thereafter~~ (no more than 12 months following the previous annual equipment inspection).

~~(A)~~(B) ~~At a minimum, the~~ The equipment inspection shall include all the elements listed in 40 CFR 60.36e(a)(1)(i) through (xvii).

~~(B)~~(C) 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.

~~(C)~~(D) The Director shall grant the extension ~~if:~~ if the owner or operator submits a written request to the Director for an extension of the 10 operating day period 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;~~ 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.~~ request, and the Director concludes that the emission control standards would not be exceeded if the repairs were delayed.

(3) Air Pollution Control Device Inspection.

(A) Each HMIWI shall undergo air pollution control device inspections, as applicable, initially within six months upon this Rule's effective date and annually (no more than 12 months following the previous annual air pollution control device inspection) to inspect air pollution control device(s) for proper operation, if applicable: ensure proper calibration of thermocouples, sorbent feed systems, and any other monitoring equipment; and generally observe that the equipment is maintained in good operating condition. 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.

(B) The Director shall grant the extension if the owner or operator of the HMIWI demonstrates that achieving compliance by the 10 operating day period is not feasible, the Director does not extend the time allowed for compliance by more than 30 days following the receipt of the written request, and the Director concludes that the emission control standards would not be exceeded if the repairs were delayed.

~~(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) On or after October 6, 2014, any HMIWI, except for small remote HMIWI, for which construction was commenced on or before June 20, 1996, or for which modification was commenced on or before March 16, 1998, and subject to the requirements listed in Table 1B of Subpart Ce of 40 CFR 60 or any HMIWI For which construction was commenced after June 20, 1996 but no later than December 1, 2008, or for which modification is commenced after March 16, 1998 but no later than April 6, 2010, and subject to the more stringent of the requirements listed in Table 1B of Subpart Ce and Table 1A of Subpart Ec of 40 CFR 60 shall comply with:

(A) the annual fugitive emissions testing requirements under §60.56c(c)(3) of Subpart Ec of 40 CFR 60;

(B) the CO CEMS requirements under §60.56c(c)(4) of Subpart Ec of 40 CFR 60; and

(C) the compliance requirements for monitoring listed in §60.56c(c)(5)(ii) through (v), (c)(6), (c)(7), (e)(6) through (10), (f)(7) through (10), and (g)(6) through (10) of Subpart Ec of 40 CFR 60; and

(D) sources subject to the emissions limits under Table 1B of Subpart Ce of 40 CFR 60 or more stringent of the requirements listed in Table 1B of Subpart Ce of 40 CFR 60 and Table 1A of Subpart Ec of 40 CFR 60 may, however, elect to use CO CEMS as specified under §60.56c(c)(4) of Subpart Ec of 40 CFR 60 or bag leak detection systems as specified under §60.57c(h). of Subpart Ec of 40 CFR 60.

~~(4)~~(5) Prior to October 6, 2014, ~~The~~ 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.

(6) On or after October 6, 2014, any small remote HMIWI constructed on or before June 20, 1996, or for which modification was commenced on or before March 16, 1998, is subject to the requirements listed in Table 2B of Subpart Ce of 40 CFR 60. The owner or operator shall comply with the compliance and performance testing requirements of 40 CFR 60.56c, excluding test methods listed in §60.56c(b)(7), (8), (12), (13) (Pb and Cd), and (14), the annual PM, CO, and HCl emissions testing requirements under §60.56c(c)(2), the annual fugitive emissions testing requirements under §60.56c(c)(3), the CO CEMS requirements under §60.56c(c)(4), and the compliance requirements for monitoring listed in §60.56c(c)(5) through (7), and (d) through (k).

(7) On or after October 6, 2014, any small remote HMIWI For which construction was commenced on or before June 20, 1996, or for which modification was commenced on or before March 16, 1998, subject to the requirements listed in Table 2A or 2B of Subpart Ce of 40 CFR 60, and not equipped with an air pollution control device shall meet the following compliance and performance testing requirements:

(A) 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. The 2,000 lb/week limitation does not apply during performance tests.

(B) The owner or operator shall not operate the HMIWI above the maximum charge rate or below the minimum secondary chamber temperature measured as 3-hour rolling averages (calculated each hour as the average of the previous three operating hours) at all times. Operating parameter limits shall 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 parameter(s).

(C) Operation of an HMIWI above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the PM, CO, and dioxin/furan emissions limits. The owner or operator of an HMIWI may conduct a repeat performance test within 30 days of violation of applicable operating parameter(s) to demonstrate that the designated facility is not in violation of the applicable emissions limit(s). Repeat performance tests conducted shall be conducted under process and control device operating conditions duplicating as nearly as possible those that indicated during the violation.

(8) On or after October 6, 2014, any small HMIWI constructed commenced emissions guidelines as promulgated on September 15, 1997, meeting all requirements listed in Table 2B of Subpart Ce of 40 CFR 60, which is located more than 50 miles from the boundary of the nearest Standard Metropolitan Statistical Area and which burns less than 2,000 pounds per week of hospital waste and medical/infectious waste and is subject to the requirements listed in Table 2B of Subpart Ce of 40 CFR 60. The 2,000 lb per week limitation does not apply during performance tests. The owner or operator shall comply with the compliance and performance testing requirements of 40 CFR 60.56c, excluding the annual fugitive emissions testing requirements under §60.56c(c)(3), the CO CEMS requirements under §60.56c(c)(4), and the compliance requirements for monitoring listed in §60.56c(c)(5)(ii) through (v), (c)(6), (c)(7), (e)(6) through (10), (f)(7) through (10), and (g)(6) through (10). The owner or operator may elect to use CO CEMS as specified under §60.56c(c)(4) or bag leak detection systems as specified under §60.57c(h).

~~(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.~~

(9) On or after October 6, 2014, the owner or operator of any HMIWI equipped with selective noncatalytic reduction technology shall:

(A) Establish the maximum charge rate, the minimum secondary chamber temperature, and the minimum reagent flow rate as site specific operating parameters during the initial performance test to determine compliance with the emissions limits;

(B) Ensure that the affected facility does not operate above the maximum charge rate, or below the minimum secondary chamber temperature or the minimum reagent flow rate measured as 3-hour rolling averages (calculated each hour as the average of the previous three operating hours) at all times. Operating parameter limits shall not apply during performance tests.

(C) Operation of any HMIWI above the maximum charge rate, below the minimum secondary chamber temperature, and below the minimum reagent flow rate simultaneously shall constitute a violation of the NO_X emissions limit. The owner or operator may conduct a repeat performance test within 30 days of violation of applicable operating parameter(s) to demonstrate that the affected facility is not in violation of the applicable emissions limit(s). Repeat performance tests conducted pursuant to this paragraph shall be conducted using the identical operating parameters that indicated a violation.

(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~~ the HMIWI 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~~ HMIWI 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~~ HMIWI 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~~ HMIWI 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~~ HMIWI 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~~ HMIWI. The Director may require the owner or operator of an ~~incinerator~~ HMIWI 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~~ HMIWI.

(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.

(8) On or after October 6, 2014, any HMIWI, except for small remote HMIWI not equipped with an air pollution control device, subject to the emissions requirements in Table 1B or Table 2B of Subpart Ce of 40 CFR 60, or the more stringent of the requirements listed in Table 1B of Subpart Ce of 40 CFR 60 and Table 1A of Subpart Ec of 40 CFR 60, shall perform the monitoring requirements listed in §60.57c of Subpart Ec of 40 CFR 60.

(9) On or after October 6, 2014, the owner or operator of a small remote HMIWI, not equipped with an air pollution control device and subject to the emissions requirements in Table 2B of Subpart Ce of 40 CFR 60 shall:

(A) install, calibrate (to manufacturers' specifications), 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 (to manufacturers' specifications), maintain, and operate a device which automatically measures and records the date, time, and weight of each charge fed into the HMIWI; and

(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 for 90 percent of the operating hours per calendar quarter that the designated facility is combusting hospital waste and/or medical/infectious waste.

(10) On or after October 6, 2014, any HMIWI for which construction commenced on or before June 20, 1996, or for which modification was commenced on or before March 16, 1998, and is subject to requirements listed in Table 1B of Subpart Ce of 40 CFR 60; or any HMIWI which construction was commenced after June 20, 1996 but no later than December 1, 2008, or for which modification is commenced after March 16, 1998 but no later than April 6, 2010, and subject to the requirements of Table 1B of this Subpart and Table 1A of Subpart Ec of this part, may use the results of previous emissions tests to demonstrate compliance with the emissions limits, provided that:

(A) Previous emissions tests must have been conducted using the applicable procedures and test methods listed in §60.56c(b) of Subpart Ec of 40CFR 60.

(B) The HMIWI is currently operated in a manner that would be expected to result in the same or lower emissions than observed during the previous emissions test and not modified such that emissions would be expected to exceed.

(C) The previous emissions test(s) must have been conducted in 1996 or later.

(11) On or after October 6, 2014, any HMIWI, (with the exception of small remote HMIWI and HMIWIs for which construction was commenced no later than December 1, 2008, or for which modification is commenced no later than April 6, 2010, and subject to the requirements listed in Table 1B of Subpart Ce of 40 CFR 60 or the more stringent of the requirements listed in Table 1B of Subpart Ce of 40 CFR 60 and Table 1A of Subpart Ec), shall include the reporting and recordkeeping requirements listed in § 60.58c(b) through (g) of Subpart Ec of this part.

(12) On or after October 6, 2014, any HMIWI for which construction was commenced no later than December 1, 2008, or for which modification is commenced no later than April 6, 2010, and subject to the requirements listed in Table 1B or the more stringent of the requirements listed in Table 1B of Subpart Ce of 40 CFR 60 and Table 1A of Subpart Ec of 40 CFR 60, is not required to maintain records required in §60.58c(b)(2)(xviii) (bag leak detection system alarms), (b)(2)(xix) (CO CEMS data), and (b)(7) (siting documentation).

(g) Excess Emissions and Start-up and Shut-down. All ~~incinerators~~ HMIWIs 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.

ECONOMIC ANALYSIS
Hospital, Medical, and Infectious Waste Incinerators

I. Basic Information

Contact Information

1. Division of Air Quality File Number	(491)
2. Analyst:	Glenn Sappie, Economist II Glenn.Sappie@ncdenr.gov
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5. Comments to Agency Contact	Joelle Burleson, 919/733-1474 Joelle.Burleson@ncdenr.gov
6. Title of the Proposed Rule	Hospital, Medical, and Infectious Waste Incinerators
7. Rule Citations	15A NCAC 02D .1206
8. Brief Description of the Proposed Rule Changes	Proposed amendments to 15A NCAC 02D .1206 will reflect the emission guidance from the Federal Register Notice of October 6, 2009, 74 FR 51368, Standards of Performance for New Stationary Sources and Emissions Guidelines for Existing Sources: Hospital/Medical/Infectious Waste Incinerators
9. Rule Category	Division 1 – Regulatory Behavior

Screening Analysis

Rule Actions	General Statute	Yes or No
19. Repeal of Regulatory Deadwood - Is the rule obsolete?	NCGS 150B-2(1b) NCGS 150B-21.5(b)	No
10. Federal Law Certification Required - Does the proposed rule purport to implement a federal law requiring a certification statement by the rulemaking coordinator?	NCGS 150B-21(f)(1)	No
11. Temporary Rules - Does this rule meet the criteria listed relating to temporary rules?	NCGS 150B-21.1	No
12. Emergency Rules - Does this rule meet the criteria relating to emergency rules?	NCGS 150B-21.1(a)	No
13. Establishes or Increases Fees - Is the agency required to complied with the requirements of G.S. 12-3.1?	NCGS 150B-12-3.1 NCGS 150B-21.3(c1)	No
14. State Funds - Does the proposed rule require the expenditure or distribution of funds subject to the Executive Budget Act, Article 1 of Chapter 143?	NCGS 150B-21.4(a)	No
15. NC DOT Analysis - Does the proposed rule affect NC DOT environmental permitting that will result in an increased cost?	NCGS 150B-21.4(a1)	No
16. Local Government Unit Funds - Does the proposed rule affect the expenditures or revenues of a unit of local government?	NCGS 150B-21.4(b)	No

Rule Actions	General Statute	Yes or No
17. Substantial Economic Impact Analysis - Federal Rule Exemption - Does this rule meet the criterion of Federal Exemption?	NCGS 150B-21.4(b1)	Yes
18. Technical Change - Are only technical changes being incorporated such that public notice and rulemaking hearings are not required?	NCGS 150B-21.5	No

II. Executive Summary

The U.S. Environmental Protection Agency (EPA), under sections 111 and 129 of the Clean Air Act (CAA), is required to regulate emissions of nine pollutants from hospital, medical, and infectious waste incinerators (HMIWI): hydrogen chloride (HCl), carbon monoxide (CO), lead (Pb), cadmium (Cd), mercury (Hg), particulate matter (PM), dioxins/furans (CDD/CDF), nitrogen oxides (NOx), and sulfur dioxide (SO_2).

On September 15, 2009, the United States Environmental Protection Agency (USEPA) issued final revisions to the September 1997 new source performance standards (NSPS) and emission guidelines to control emissions from existing hospital, medical, and infectious waste incinerators (HMIWI).

USEPA recalculated the maximum achievable control technology (MACT) floors for existing and new HMIWI and developed new emission limits. The MACT floor level of control is the minimum level of stringency that can be considered in establishing standards under Section 129 of the Clean Air Act.

USEPA's regulations have strengthened existing emission limits for all regulated pollutants, and add stack testing requirements for existing and new sources, monitoring requirements for new sources, annual inspections of emission control devices, one-time visible emissions test of ash handling operations, procedures for test data submittal, and revised waste management plan provisions.

The current North Carolina effective Rule for Hospital, Medical Infectious Waste Incinerator is 15A NCAC 02D .1206. This proposed rulemaking will not impact expenditure of State funds. There are not any HMIWI facilities that are owned by the State of North Carolina and there rule amendments will not affect the North Carolina Department of Transportation's environmental permitting. There are not any HMIWI facilities that are owned by units of local government, and there are no federally owned HMIWI facilities that will experience any related economic impacts.

There are three local air program counties in North Carolina that were consulted. They do not expect any changes to their agency’s administrative costs due to these rule amendments. These local programs adopt the state rules “by reference” that are nearly identical to the State of North Carolina’s air quality rules, but they are at least as strict. The local program area contains a source that may be interested in these amendments. The Mecklenburg County Commissioners recently passed a resolution supporting a 2012 MACT compliance deadline. Currently EPA is reviewing a Title V permit renewal for

BMWNC. Inc, a HMIWI located in Mathews, NC. Their local air program permitting authority incorporated an earlier deadline of 2012 for MACT compliance.

In summary, if the regulatory baseline for these amendments is defined by the emission guidance from the Federal Register Notice of October 6, 2009, 74 FR 51368, Standards of Performance for New Stationary Sources and Emissions Guidelines for Existing Sources: Hospital/Medical/Infectious Waste Incinerators, then these proposed rule amendments are not expected to cause additional economic impact beyond the federal requirements. No State owned facilities are among the affected parties, nor are there any costs above the baseline to Division of Air Quality, which is the state agency that implements these rules. There are no HMIWI facilities that are owned by a unit of local government among the interested parties, and there are no economic impacts above the baseline due to the rule amendments. There are no costs above the baseline to any of the three local air programs in North Carolina, which are the agencies that implement their rules. There do not appear to be any related small business impacts. Also, these rule amendments will not affect environmental permitting of North Carolina Department of Transportation projects. Although no economic impacts were expected to occur to any unit of local government, counties and municipalities are among the interested parties to these rule amendments. There are, however, baseline private sector compliance costs associated with the federal MACT requirements, although based on available information it is unclear whether the impact from the federal regulation would be substantial. Due to this uncertainty, these rule amendments are deemed substantial. Given that these amendments reference a required federal regulation and make not additional changes, they would meet the criterion for federal exemption NCGS 150B-21.4(b1), and so are not deemed to be significant.

III. Background

Proposed amendments to 15A NCAC 02D .1206 will reflect the emission guidance from the Federal Register Notice of October 6, 2009, 74 FR 51368, Standards of Performance for New Stationary Sources and Emissions Guidelines for Existing Sources: Hospital/Medical/Infectious Waste Incinerators.

The Division of Air Quality (DAQ) has completed a review of the Federal Register Notice and has concerns with accelerating the required compliance date forward from October 6, 2014 to October 6, 2012, as proposed by the Mecklenburg Local Air Program (MCAQ). These concerns include:

1. A shorter compliance period may increase economic costs associated with meeting the new standards while increasing the probability of not meeting the required standards. Adequate time is required for planning, designing, purchasing, installing and testing new equipment. Changes in the operating characteristics of existing controls caused by the insertion of new emission control equipment into the exhaust stream must be engineered and planned for to meet lower emission standards. Additionally, there is a major increase in the use of multiple continuous monitoring systems that will require engineering, planning, purchases, installation, and training.

2. USEPA states in the preamble that, "Because many HMIWI will find it necessary to retrofit existing emissions control equipment and/or install additional emissions control

equipment in order to meet the revised limits, states may wish to consider providing the maximum compliance period allowed by CAA Section 129(f)(2)."

3. It is technically more challenging and potentially more costly to retrofit a control system to an existing unit than to incorporate controls when a unit is initially designed.

USEPA anticipates commercial HMIWIs improvements would include:

1. Most wet scrubber-controlled units adding a fabric filter-based system for improved control of particulate matter and metals;

2. Most units with fabric filter-based systems adding a packed-bed wet scrubber for improved control of hydrochloric acid;

3. Adding activated carbon injection or increasing activated carbon usage rate for improved mercury and dioxin control;

4. Upgrading fabric filter performance for improved control of particulate matter and metals;

5. Increasing lime or caustic use for improved control of hydrochloric acid and, in a few instances, sulfur dioxide;

6. Combustion improvements primarily associated with decreasing carbon monoxide emissions.

7. A few units may require add-on controls nonselective catalytic reactor to meet the revised nitrogen oxides emissions levels.

USEPA estimates that approximately 95 percent of the estimated total cost in the first year is for emissions control, and the remaining 5 percent is for monitoring, testing, recordkeeping and reporting. In the current economic period, securing credit to purchase and install retrofit emission control equipment and monitoring equipment has been difficult.

USEPA lists several different disposal options, such as sending waste to a municipal waste combustor, a commercial HMIWI, or using chemical treatment (e.g., ozone, electropyrolysis, chlorine compounds, alkali agents), thermal treatment (e.g., plasma arc, microwave technologies), or mechanical systems (e.g., shredding, compacting) that may be available to some facilities. A major disposal alternative to HMIWI according to USEPA may be onsite sterilization of the waste using an autoclave followed by landfilling of the sterilized waste. These alternative disposal options have been available over a long period to the waste generators. DAQ reasons that there may be a reluctance of individual generators to get into special waste treatment processing and proper disposal. Further, that reluctance may be related to potential liability if the waste is improperly handled.

IV. Description of Rule Amendments

15A NCAC 02D .1206 – Proposed amendments to 15A NCAC 02D .1206 will reflect the emission guidance from the Federal Register Notice of October 6, 2009, 74 FR 51368, Standards of Performance for New Stationary Sources and Emissions Guidelines for Existing Sources: Hospital/Medical/Infectious Waste Incinerators. The revised State implementation plans have to be submitted to EPA on October 6, 2010.

V. Motivation for Rule Modifications

Proposed amendments to 15A NCAC 02D .1206 will reflect the emission guidance from the Federal Register Notice of October 6, 2009, 74 FR 51368, Standards of Performance for New Stationary Sources and Emissions Guidelines for Existing Sources: Hospital/Medical/Infectious Waste Incinerators. To meet those federal requirements and for the reasons discussed, DAQ is proposing to the Environmental Management Commission that the compliance date follow the emission guidance document and be October 6, 2014.

In addition to reducing the compliance date by two years, MCAQ recommended that the owners or operators of HMIWI submit compliance plans by October 6, 2010. DAQ believes it is the responsibility of the owner or operator of HMIWI to manage the planning and installation of projects in a sound manner without the implied concurrence of the regulating authority. DAQ has not included a requirement for compliance plans in rulemaking with the exception of a facility that is no longer in compliance.

MCAQ requested that the North Carolina Science Advisory Board (NCSAB) "… immediately review the Acceptable Ambient Levels (AALs) established for emissions of toxics from medical waste incinerators … to provide assurance that they continue to be protective of public health within the prescribed margins of safety." As MCAQ noted, USEPA has lowered emission rates of toxic air pollutants for these types of facilities and this may create some level of concern that current AALs for these pollutants may not be as protective as may be desired or believed. AALs are guideline airborne concentrations of toxic air pollutants based on an exhaustive evaluation of peer-reviewed toxicological evidence; in other words, AALs are health-based, not technology-based. "Acceptable" in this context is intended to be a level "below which the concentration that would produce adverse health effects in sensitive subgroups of the general population" (North Carolina Academy of Science, 1986). As a matter of fact, there are AALs (asbestos, for example) that are set at concentrations so low they are not measurable. The USEPA's lowered toxic air pollutant emission rates are based upon a technology standard (Maximum Available Control Technology) for the country. DAQ is confident that the current AALs are health-protective of the general public within prescribed margins of safety.

VI. Affected Sources

Two commercial HMIWI facilities, Stericycle in Haw River and BMWNC in Mathews, are owned and operated in North Carolina. The United States Environmental Protection Agency (USEPA) determines maximum achievable control technology (MACT) emission limitations based on the average performance of the top 12 percent of sources in the HMIWI category. The economic analysis relies heavily upon USEPA estimated compliance costs for Stericycle and BMWNC. USEPA characterize commercial HMIWI as having regional monopolistic market power. According to USEPA, their marginal compliance costs may be passed along to their customers without affecting profits due to regional waste disposal demand. These two large HMIWI facilities were contacted by DAQ, either to discuss USEPA estimates and to seek any additional compliance information directly that these facilities may have developed to the contrary. DAQ is not completely confident with USEPA estimates after reviewing these preliminary estimates developed for their federal regulatory impact analysis (RIA).

Another HMIWI is operated at Duke University. It is defined as a "captive" HMIWI, meaning that it only incinerates hospital, medical and infectious wastes that are generated on-site and that it does not accept waste from other locations. USEPA assumed that compliance costs of these types of operation are typically very small relative to total revenues associated with the medical facilities at Duke University; however USEPA didn't estimate their MACT compliance costs in their regulatory impact analysis. Duke University is classified as a major Title V facility, due to the combined emissions from its many steam boilers and emergency generators. They also have seven permitted ethylene oxide sterilizers. The applicable regulation for this pathological waste incinerator is under 15A NCAC 02D .1208(b)(2) and as such the proposed amendments to the HMIWI rule will not effect this source.

VII. Estimating Costs of Complying with the MACT Revisions for Existing HMIWI

The USEPA estimated costs associated with the new MACT revisions for existing HMIWI that include control costs, testing costs, record-keeping and reporting costs, and monitoring costs. The total annualized costs include capital costs of purchasing and installing new equipment, annualized over the expected lifetime of the equipment at 7%, as well as annual costs such as labor costs, materials costs, overhead, and other indirect costs. These MACT requirements form the basis of regulatory baseline cost included in this economic analysis.

Emission control technologies and other control measures that can be used to comply with the MACT floor options for existing HMIWI include packed-bed wet scrubbers, fabric filters, dry scrubbers, HMIWI secondary chamber retrofits, selective noncatalytic reduction (SNCR), activated carbon injection (ACI), and various other control measures designed to obtain incremental emission reductions. The retrofit factors for the model capital costs were assumed to be 40 percent for wet scrubbers, fabric filters, and dry scrubbers and 20 percent for SNCR and ACI. Downtime costs for the retrofits were assumed to be negligible (except for secondary chamber retrofits, which already include retrofit/downtime costs). Most HMIWI are expected to be outdoors with adequate space to install an emission control system without shutting down the incinerator. It was also expected that connecting the ductwork could be performed during a scheduled downtime for maintenance. According to

USEPA, the model annual costs for the emission controls were estimated in units of dollars per year ($/yr) and $/flow. The $/flow costs were calculated by dividing the $/yr control cost estimate for each model HMIWI by the gas flow rate for that model. The $/flow costs were used to calculate unit-specific control costs for each HMIWI. The following is a list of options used to achieve emission reductions that illustrate a range of cost estimates developed by the USEPA. All control measure costs are herein reported using 2007 dollars in order to remain consistent with the USEPA cost manual methodology. The Chemical Engineering Plant Cost Index (CEPCI) has been increasing by about eight percent annually since 2004.

1. Packed-bed wet scrubbers. Packed-bed wet scrubbers are especially effective at reducing emissions of acid gases such as HCl, and also provide limited control of PM, metals, and SO_2 (if present at high enough concentrations). These wet scrubbers can be installed either alone or after a dry scrubber/ fabric filter. The wet scrubber capital costs were updated to 2007 dollars using the CEPCI and range from approximately $260,000 to $453,000.

The wet scrubber annual costs were updated to 2007 dollars using current estimates for unit costs and labor rates and range from approximately $51,600/yr to $104,000/yr.

2. Fabric filters. Fabric filters can be used to improve the PM (and associated particulate metals) emission control at HMIWI. Fabric filters can be installed either alone or before a wet scrubber. The fabric filter capital costs from these algorithms were updated to 2007 dollars using the CEPCI and range from approximately $689,000 to $1.02 million.

The fabric filter annual costs were updated to 2007 dollars using current estimates for unit costs and labor rates and range from approximately $130,000/yr to $268,000/yr.

3. Dry scrubbers. A dry scrubber can be used in concert with a fabric filter to reduce emissions of PM, as well as emissions of acid gases such as HCl. The predominant type of dry system used at HMIWI is a dry sorbent injection system followed by a fabric filter (DIFF). The DIFF capital costs from these algorithms were updated to 2007 dollars using the CEPCI and range from approximately $917,000 to $1.36 million.

The DIFF annual costs were updated to 2007 dollars using current estimates for unit costs and labor rates and range from approximately $168,000/yr to $347,000/yr.

4. Secondary chamber retrofits. Secondary chamber retrofits, which include retrofitting the incinerator with a larger secondary chamber (with a longer gas residence time, e.g., 2 seconds) and operating it at a higher temperature (e.g., 1800°F), can achieve greater reductions in emissions of combustion-related pollutants such as CO and CDD/CDF. Combustion control includes the proper design, construction, operation, and maintenance of HMIWI to destroy or prevent the formation of air pollutants prior to their release to the atmosphere. Test data indicate that as secondary chamber residence time and temperature increase, emissions decrease. Combustion control is most effective in reducing CDD/CDF, PM, and CO emissions. The 2-second combustion level, which includes a minimum secondary chamber temperature of 1800 °F and residence time of 2 seconds, is considered to be the best level of combustion control (*i.e.*, good combustion) that is applied to HMIWI.

The secondary chamber retrofit capital costs estimated based on the algorithms were updated to 2007 dollars using the CEPCI and range from approximately $75,300 to $346,000.

The secondary chamber retrofit annual costs were estimated in 2007 dollars using an updated unit cost for natural gas obtained from an online source, and range from approximately $15,100/yr to $80,800/yr.

5. Selective noncatalytic reduction. SNCR systems have been used for NO_x emission control on industrial boilers, electric utility steam generators, thermal incinerators, and municipal 4 solid waste energy recovery facilities. The SNCR capital costs from these algorithms were updated to 2007 dollars using the CEPCI and range from approximately $186,000 to $586,000.

The SNCR annual costs were updated to 2007 dollars using current estimates for unit costs and labor rates and range from approximately $22,900/yr to $67,900/yr.

6. Activated carbon injection system. Injecting activated carbon before the fabric filter has been demonstrated to improve the removal efficiency of both Hg and CDD/CDF from HMIWI. Capital costs for the ACI system from these algorithms were updated to 2007 dollars using the CEPCI and range from approximately $3,800 to $12,000.

Annual costs for the ACI system were updated to 2007 dollars using current estimates for unit costs and labor rates and range from approximately $5,400/yr to $56,300/yr

7. Incremental controls. In some instances, it may not be necessary to install a new control system to achieve the emissions reductions necessary to comply with the control options. An incremental reduction in emissions may be achievable by simply increasing the flow of lime, sodium bicarbonate ($NaHCO_3$), or activated carbon prior to the fabric filter; increasing the amount of natural gas used in the incinerator; or increasing the amount of caustic used in the wet scrubber.

a. Increase caustic. One strategy to reduce acid gas emissions such as SO_2 further is to increase the amount of caustic used in the wet scrubber to react with and neutralize the acid gases in the gas stream. The addition of caustic is assumed to sufficiently reduce emissions without requiring any changes to the wet scrubber. Model costs to increase the amount of caustic were estimated using the same caustic equation employed in costing packed-bed wet scrubbers and range from approximately $5/yr to $200/yr.

b. Increase lime/sodium bicarbonate flow. Emissions of acid gases such as HCl may be reduced further by increasing the feed rate of lime or $NaHCO_3$ prior to the fabric filter. Model costs to increase lime flow were estimated using the same equations for makeup lime and dust disposal employed for the DIFF costs and range from approximately $200/yr to $20,900/yr.

Model costs to increase $NaHCO_3$ flow were estimated and range from approximately $800/yr to $81,600/yr.

c. Increase activated carbon flow. Injecting activated carbon before the fabric filter has been demonstrated to improve the removal efficiency of both Hg and CDD/CDF from HMIWI. Model costs to increase activated carbon flow range from approximately $1,600/yr to $42,600/yr.

d. Increase natural gas use. One strategy to reduce CO and CDD/CDF emissions further is to increase the amount of natural gas fired in the secondary chamber and consequently increase the temperature in the secondary chamber. Carbon monoxide is a product of incomplete combustion, and increasing the temperature in the secondary chamber should subsequently increase the degree of combustion in the chamber; higher temperatures in the secondary chamber should also contribute to the decomposition of CDD/CDF compounds. Model costs to fire additional natural gas were estimated using the same natural gas equation employed in costing secondary chamber retrofits and range from $1,100/yr to $30,200/yr.

e. Improve fabric filter performance. One strategy to reduce PM and metals emissions further is to improve the performance of the fabric filter by replacing the filter bags used to capture the particulate emitted from the HMIWI. Model costs to improve fabric filter performance range from $1,300/yr to $8,600/yr.

f. Increase NO_x reagent. One strategy to reduce NO_x emissions further is to increase the amount of ammonia or urea used in SNCR systems. Model costs to increase the amount of NO_x reagent range from $500/yr to $1,800/yr.

VIII. Summary of Costs Incurred by Affected Parties

State Funds

No State owned facilities are among the affected parties, nor any costs above the baseline to Division of Air Quality, which is the state agency that implements these rules. These rule amendments will not affect environmental permitting by the North Carolina Department of Transportation (NCDOT) projects and no NCDOT funds will be expended as a result of this rulemaking.

Units of Local Government Funds

There are no HMIWI facilities that are owned by a unit of local government among the interested parties, and there are no economic impacts above the baseline due to the rule amendments. There are no costs above the baseline to any of the three local air programs in North Carolina, which are the agencies that implement their rules.

Private Sector Costs

EPA estimated the baseline capital costs for BMWNC (Matthews, NC) at $802,000 and associated annual operating costs of $308,000 which included monitoring, testing, recordkeeping and reporting. BMWNC, Inc. may experience economic impacts relative to baseline requirements. The MCAQ may require an earlier compliance and achieving compliance will increase costs. The facility plant manage indicated that USEPA estimate did not account for an additional $1.7 in capital cost expenditures. They had not recalculated or identified additional annual operating expenditures.

USEPA estimated the capital costs of $2.8 million for Stericycle, Inc. in Haw River to install MACT controls including dry injection fabric filter (DIFF) and activated carbon injection (ACI) along with annual operating costs of $835,000 which included monitoring, testing, recordkeeping and reporting. Stericycle, Inc. will not experience economic impacts relative to federal MACT baseline requirements.

IX. Public Benefit

Through other rules, North Carolina separately requires these sources to demonstrate compliance with acceptable ambient level concentrations beyond their property boundary for any toxic air pollutants that may be emitted from these facilities. The difficulty in achieving those AALs is directly proportion to emission rates that are reduced due to installation of technological improvement in required control measures.

Making the requirements of these rules easier to understand, implement, and enforce may better protect the public health. Additionally, updating the rules for HMIWIs to reflect the most recent Section 111(d) guideline performance standard for existing HMIWI sources should lead to USEPA approval of 15A NCAC 02D .1206 as a part of North Carolina's 111(d) and 129 state implementation plans and make them federally enforceable.

X. Conclusion

The proposed amendment of 02D .1206 will update federal requirements and are proposed to reduce confusion during operations and inspections by consolidating operating requirements and standards for each source size and update the performance standards for HMIWIs to reflect USEPA's guidance.

The amendments add more complicity to the rule because of multiple new scenarios based on construction and modification dates and equipment size that determines new emission limits, testing requirements, and monitoring requirements.

USEPA suggests that the number of HMIWIs will drop throughout the country due to the use of alternative disposal processes available to the waste generators at 75 percent of the HMIWI cost. However, these disposal processes have been available to generators for a number of years. It has been suggested that the waste generators may not be interested in taking on the responsibility and potential liabilities of properly disposing of their waste.

The public is protected under the current HMIWI rule and will continue to be under the proposed rulemaking. The emission standards that are being tightened reflect current emissions from well-operated existing HMIWIs.

North Carolina has two operating HMIWI facilities currently operating under 02D .1206. The first is Stericycle in Haw River, Alamance County. It operates two commercial HMIWIs that serve customers in eight states. The second facility is BMW in Mathews, North Carolina, permitted by the Mecklenburg local air quality program. BMW operates one commercial incinerator and is in competition with Stericycle.

In the RIA developed by USEPA, BMWNC was characterized as a "borderline" small business that may be affected by their amendment. There are no units of local government among the affected community. Local governments will incur zero additional costs as a result of the rule amendments. Implementation costs by DAQ are not expected to change. The Division of Air Quality is the State's primary implementing agency for the existing rules and there are no additional costs due to the proposed rule amendment. There are no economic impacts related to the permitting of the NC Department of Transportation projects.

Over the period of this analysis, these amendments do not impose any cost to the State of North Carolina, or any unit of local government. Private sector compliance expenditures were identified, therefore the proposed rule amendments may cause substantial economic impacts as defined in the Administrative Procedures Act in NC *§150B-21.4., Fiscal notes on rules*.

No economic impacts were expected to occur to any unit of local government; however counties and municipalities are expected to be among the interested parties to these rule amendments. These rule amendments are "substantial" but not deemed to be significant as defined by fiscal note preparation guidance issued by the Office of State Budget and Management (OSBM) under NCGS 150B-21.4(b1), although these rule amendment would the criterion for federal exemption.