

COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF ENVIRONMENTAL PROTECTION

310 CMR 7.00 AIR POLLUTION CONTROL REGULATIONS

310 CMR 7.08 U INCINERATORS

7.08: U Incinerators

(1) * * *

(2) Municipal Waste Combustors.

(a) * * *

(b) Purpose. The purpose of 310 CMR 7.08(2) is to provide emission limitations and compliance schedules for the control of certain designated pollutants from Municipal Waste Combustors in accordance with sections 111(d) and 129 of the Clean Air Act.

(c) Definitions. The definitions found in 310 CMR 7.00 apply to 310 CMR 7.08(2) unless otherwise defined in 310 CMR 7.08(2). The following words and phrases shall have the following meanings as they appear in 310 CMR 7.08(2).

CALENDAR QUARTER means any consecutive three-month period (nonoverlapping) beginning on January 1, April 1, July 1 or October 1.

CALENDAR YEAR means any period starting January 1 and ending on December 31.

CHIEF FACILITY OPERATOR means the person in direct charge and control of the operation of a municipal waste combustor and who is responsible for daily onsite supervision, technical direction, management, and overall performance of the facility.

CLEAN WOOD means untreated wood or untreated wood products including clean untreated lumber, tree stumps (whole or chipped), and tree limbs (whole or chipped). Clean wood does not include yard waste, or construction, renovation, and demolition wastes (including but not limited to railroad ties and telephone poles).

CONTINUOUS BURNING means the continuous, semicontinuous, or batch

feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during a startup period, when municipal solid waste is not being fed to the grate, is not considered to be continuous burning.

CONTINUOUS EMISSION MONITORING SYSTEM means a monitoring system for continuously measuring the emissions of a pollutant from a municipal waste combustor unit.

DIOXIN/FURAN means tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans.

dscm means dry standard cubic meter.

FIRST CALENDAR HALF means the period starting on January 1 and ending on June 30 in any year.

FOUR-HOUR BLOCK AVERAGE or 4-HOUR BLOCK AVERAGE means the average of all hourly emission concentrations when the affected facility is operating and combusting municipal solid waste, measured over a four-hour period of time from 12:00 midnight to 4:00 A.M., 4:00 A.M. to 8:00 A.M., 8:00 A.M. to 12:00 noon, 12:00 noon to 4:00 P.M., 4:00 P.M. to 8:00 P.M., or 8:00 P.M. to 12:00 midnight.

LARGE MUNICIPAL WASTE COMBUSTOR UNIT means a municipal waste combustor unit with a capacity greater than 250 tons/day of municipal solid waste.

MASS BURN REFRACTORY MUNICIPAL WASTE COMBUSTOR means a field-erected combustor that combusts municipal solid waste in a refractory wall furnace. Unless otherwise specified, this includes combustors with a cylindrical rotary refractory wall furnace.

MASS BURN WATERWALL MUNICIPAL WASTE COMBUSTOR means a field-erected combustor that combusts municipal solid waste in a waterwall furnace.

* * *

MAXIMUM DEMONSTRATED MUNICIPAL WASTE COMBUSTOR UNIT LOAD means the highest 4-hour arithmetic average municipal waste combustor unit load achieved during four consecutive hours during the most

recent dioxin/furan stack test demonstrating compliance with the applicable limit for municipal waste combustor organics specified under 310 CMR 7.08(2)(f)(2): *Table 2* .

MAXIMUM DEMONSTRATED PARTICULATE MATTER CONTROL DEVICE TEMPERATURE means the highest four-hour arithmetic average flue gas temperature measured at the particulate matter control device inlet during four consecutive hours during the most recent dioxin/furan stack test demonstrating compliance with the applicable limit for municipal waste combustor organics specified under 310 CMR 7.08(2)(f)(2): *Table 2* .

MODIFICATION or MODIFIED MUNICIPAL WASTE COMBUSTOR UNIT means a municipal waste combustor unit to which changes have been made if the cumulative cost of the changes, over the life of the unit, exceed 50% of the original cost of construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs; or any physical change in the municipal waste combustor unit or change in the method of operation of the municipal waste combustor unit which increases the amount of any air pollutant emitted by the unit for which standards have been established under §129 or §111 of the Clean Air Act. Whether there is an increase in the amount of any air pollutant emitted by the municipal waste combustor unit shall be determined at 100% physical load capability and downstream of all air pollution control devices, with no consideration given for load restrictions based on permits or other nonphysical operational restrictions.

MUNICIPAL SOLID WASTE or MUNICIPAL TYPE SOLID WASTE means household, commercial/retail, and/or institutional waste. Household waste includes material discarded by single and multiple residential dwellings, hotels, motels, and other similar permanent or temporary housing establishments or facilities. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes material discarded by schools, nonmedical waste discarded by hospitals, material discarded by nonmanufacturing activities at prisons and government facilities, and material discarded by other similar establishments or facilities. Household, commercial/retail, and institutional waste does not include used oil; sewage sludge; wood pallets; construction, renovation, and demolition waste (which includes but is not limited to railroad ties and telephone poles); clean wood; industrial process or manufacturing waste; medical waste; or motor vehicles (including motor vehicle parts or vehicle fluff). Household, commercial/retail, and institutional waste includes:

- (a) yard waste; and
- (b) refuse-derived fuel.

MUNICIPAL WASTE COMBUSTOR or MUNICIPAL WASTE COMBUSTOR UNIT OR UNIT means any setting or equipment that combusts solid, liquid, or gasified municipal solid waste including, but not limited to, field-erected incinerators (with or without heat recovery), modular incinerators (starved-air or excess-air), boilers (i.e., steam generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air curtain incinerators, or fluidized bed-fired), and pyrolysis/combustion units. Municipal waste combustors units do not include pyrolysis/combustion units located at a plastics/rubber recycling unit as specified in 310 CMR 7.08(2). Municipal waste combustors do not include internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.

The boundaries of a municipal solid waste combustor are defined as follows. The municipal waste combustor unit includes, but is not limited to, the municipal solid waste fuel feed system, grate system, flue gas system, bottom ash system, and the combustor water system. The municipal waste combustor boundary starts at the municipal solid waste pit or hopper and extends through:

- (a) The combustor flue gas system, which ends immediately following the heat recovery equipment or, if there is no heat recovery equipment, immediately following the combustion chamber;
- (b) The combustor bottom ash system, which ends at the truck loading station or similar ash handling equipment that transfers the ash to final disposal, including all ash handling systems that are connected to the bottom ash handling system; and
- (c) The combustor water system, which starts at the feed water pump and ends at the piping exiting the steam drum or superheater. The municipal waste combustor unit does not include air pollution control equipment, the stack, water treatment equipment, or the turbine-generator set.

MUNICIPAL WASTE COMBUSTOR ACID GASES means all acid gases emitted in the exhaust gases from municipal waste combustor units including, but not limited to, sulfur dioxide and hydrogen chloride gases.

MUNICIPAL WASTE COMBUSTOR METALS means metals and metal

compounds emitted in the exhaust gases from municipal waste combustor units.

MUNICIPAL WASTE COMBUSTOR ORGANICS means organic compounds emitted in the exhaust gases from municipal waste combustor units and includes tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans.

MUNICIPAL WASTE COMBUSTOR PLANT means one or more municipal waste combustor units at the same facility for which construction was commenced on or before September 20, 1994.

MUNICIPAL WASTE COMBUSTOR UNIT CAPACITY means the maximum charging rate of a municipal waste combustor unit expressed in tons per day of municipal solid waste combusted, calculated according to the procedures under 40 CFR 60.58b(j) as last amended May 10, 2006. 40 CFR 60.58b(j) includes procedures for determining municipal waste combustor unit capacity for continuous and batch feed municipal waste combustors.

MUNICIPAL WASTE COMBUSTOR UNIT LOAD means the steam load of the municipal waste combustor unit measured as specified in 40 CFR 60.58b(i)(6) as last amended May 10, 2006.

PARTICULATE MATTER means total particulate matter emitted from municipal waste combustor units measured as specified in 40 CFR, Part 60, Appendix A, Reference Method 5.

PLASTICS/RUBBER RECYCLING UNIT means an integrated processing unit where plastics, rubber, and/or rubber tires are the only feed materials (incidental contaminants may be included in the feed materials) and they are processed into a chemical plant feedstock or petroleum refinery feedstock, where the feedstock is marketed to and used by a chemical plant or petroleum refinery as input feedstock. The combined weight of the chemical plant feedstock and petroleum refinery feedstock produced by the plastics/rubber recycling unit on a calendar quarter basis shall be more than 70% of the combined weight of the plastics, rubber, and rubber tires processed by the plastics/rubber recycling unit on a calendar quarter basis. The plastics, rubber, and/or rubber tire feed materials to the plastics/rubber recycling unit may originate from the separation or diversion of plastics, rubber, or rubber tires from MSW or industrial solid waste, and may include manufacturing scraps trimmings, and off-specification plastics, rubber, and rubber tire discards. The plastics, rubber, and rubber tire feed materials to the plastics/rubber recycling unit may contain incidental contaminants (*e.g.*, paper labels on plastic bottles, metal rings on plastic bottle caps, *etc.*)

POTENTIAL HYDROGEN CHLORIDE EMISSION CONCENTRATION means the hydrogen chloride emission concentration that would occur from combustion of municipal solid waste in the absence of any emission controls for municipal waste combustor acid gases.

POTENTIAL MERCURY EMISSION CONCENTRATION means the mercury emission concentration that would occur from combustion of municipal solid waste in the absence of any mercury emissions control.

POTENTIAL SULFUR DIOXIDE EMISSIONS means the sulfur dioxide emission concentration that would occur from combustion of municipal solid waste in the absence of any emission controls for municipal waste combustor acid gases.

RECONSTRUCTION means rebuilding a municipal waste combustor unit for which the reconstruction commenced after June 19, 1996, and the cumulative costs of the construction over the life of the unit exceed 50% of the original cost of construction and installation of the unit (not including any cost of land purchased in connection with such construction or installation) updated to current costs (current dollars).

REFRACTORY UNIT or REFRACTORY WALL FURNACE means a combustion unit having no energy recovery (*e.g.*, via a waterwall) in the furnace (*i.e.*, radiant heat transfer section) of the combustor.

REFUSE-DERIVED FUEL means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including, but not limited to low-density fluff refuse-derived fuel, densified refuse-derived fuel and pelletized refuse-derived fuel.

REFUSE-DERIVED FUEL STOKER means a steam generating unit that combusts refuse-derived fuel in a semisuspension firing mode using air-fed distributors.

SECOND CALENDAR HALF means the period starting July 1 and ending on December 31 in any year.

SHIFT SUPERVISOR means the person who is in direct charge and control of the operation of a municipal waste combustor and who is responsible for onsite supervision, technical direction, management, and overall performance of the facility during an assigned shift.

SMALL MUNICIPAL WASTE COMBUSTOR UNIT means a municipal waste combustor unit with a municipal waste combustor unit capacity greater than 39 tons per day but equal to or less than 250 tons per day of municipal solid waste.

STANDARD CONDITIONS means a temperature of 20 °C and a pressure of 101.3 kilopascals.

TOTAL MASS DIOXIN/FURAN OR TOTAL MASS means the total mass of tetra- through octachlorinated dibenzo-p-dioxins and dibenzofurans, as determined using 40 CFR, Part 60, Appendix A, Reference Method 23.

TWENTY-FOUR HOUR DAILY AVERAGE OR 24-HOUR DAILY AVERAGE means either the arithmetic mean or geometric mean (as specified) of all hourly emission concentrations when the affected unit is operating and combusting municipal solid waste measured over a 24-hour period between 12:00 midnight and the following midnight.

UNTREATED LUMBER means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Untreated lumber does not include wood products that have been painted, pigment-stained, or "pressure-treated." Pressure treating compounds include, but are not limited to, chromate copper arsenate, pentachlorophenol, and creosote.

WATERWALL FURNACE means a combustion unit having energy (heat) recovery in the furnace (*i.e.*, radiant heat transfer section) of the combustor.

YARD WASTE means grass, grass clippings, bushes, and shrubs that are generated by residential, commercial/retail, institutional, and/or industrial sources as part of maintenance activities associated with yards or other private or public lands. Yard waste does not include construction, renovation, and demolition wastes. Yard waste does not include clean wood.

(d) Designated Pollutants and Operating Practices - 310 CMR 7.08(2) establishes requirements for the following municipal waste combustor operating practices, pollutants, opacity and fugitive ash:

1. * * *
2. * * *
3. * * *

4. * * *
5. * * *
6. * * *
7. Nitrogen Oxides (NO_x)
8. * * *

(e) Applicability

1. Large Municipal Waste Combustor Units. 310 CMR 7.08(2) applies in its entirety to any person who owns, leases, operates or controls a large municipal waste combustor unit. Applicable requirements and limitations contained in 310 CMR 7.08(2) shall not supersede, relax or eliminate any more stringent conditions or requirements (*e.g.* emission limitation(s), testing, recordkeeping, reporting, or monitoring requirements) established by regulation or contained in a facility's previously issued source specific plan approvals(s) or emission control plan(s).
2. Other Approvals or Permits - A plan approval under 310 CMR 7.02(2) is not required in order to implement the requirements for 310 CMR 7.08(2) unless construction, substantial reconstruction or alterations are planned at the facility which are not required under the requirements at 310 CMR 7.08(2). If the facility has a final operating permit pursuant to 310 CMR 7.00: *Appendix C*, the operating permit will be modified upon approval of the emission control plan, in accordance with the procedures in 310 CMR 7.00: *Appendix C(8)*. No additional application or fee is necessary to modify the operating permit at the same time the emission control plan is approved. If the facility does not have a final operating permit, the facility must amend its operating permit application to include the approved emission control plan.

(f) Applicable Requirements.

1. * * *
2. * * *
3. Nitrogen Oxides – No person subject to 310 CMR 7.08(2) shall cause, suffer, allow or permit the discharge into the atmosphere from a municipal waste combustor unit any gases that contain nitrogen oxides in excess of the emission limits specified in 310 CMR 7.08(2)(f)3.: *Table 3*. Emission Reduction Credits (ERCs) generated under 310 CMR 7.00. *Appendix B(3)*

may be used to comply with the requirements contained in Table 3.

TABLE 3. NITROGEN OXIDES EMISSION LIMITS FOR LARGE MUNICIPAL WASTE COMBUSTOR UNITS

Municipal Waste Combustor Technology	NO _x Emission Limit (Parts per million by volume) ^a		Averaging Time ^b
	Until one year after issuance of ECP approval under 310 CMR 7.08(2)(j)1., but no later than March 9, 2020	Beginning one year after issuance of ECP approval under 310 CMR 7.08(2)(j)1., but no later than March 10, 2020	
Mass Burn Waterwall	205	150	24-hour
Refuse-derived Fuel Stoker	250	146	24-hour

^a Corrected to 7% oxygen, dry basis.

^b Averaging times are 24-hr daily arithmetic averages.

4. Nitrogen Oxides Emission Averaging Plan - A person subject to 310 CMR 7.08(2) may elect to implement a nitrogen oxides emissions averaging plan for the units located at the same municipal waste combustor plant. Municipal waste combustor units subject to 40 CFR, Part 60, Subpart Ea or Eb shall not be included in the emissions averaging plan. The units included in the nitrogen oxides emissions averaging plan must be identified in the annual report specified in 310 CMR 7.08(2)(i), prior to implementing the averaging plan. The units at the plant included in the averaging plan may be redesignated each calendar year.
 - a. To implement an emissions averaging plan, the average daily (24-hour) nitrogen oxides emission concentration level for gases discharged from units included in the emissions averaging plan shall not exceed the limits specified in Table 4.

TABLE 4. NITROGEN OXIDES EMISSION LIMITS FOR UNITS INCLUDED IN AN EMISSIONS AVERAGING PLAN

Municipal Waste Combustor Technology	NO _x Emission Limit (Parts per million by volume) ^a	Averaging Time ^b
Mass Burn Waterwall	150	24-hour
Refuse-derived Fuel Stoker	146	24-hour

^a Corrected to 7 percent oxygen, dry basis.

^b Averaging times are 24-hr daily arithmetic averages.

- b. Under an emissions averaging plan, the average daily nitrogen oxides emission limits specified in Table 4 shall be calculated using equation (1). Units that are offline shall not be included in calculating the average daily nitrogen oxides emission level.

$$NO_{x\ 24\text{-hr}} = \frac{\sum_{I=1}^h (NO_{xi})(S_i)}{\sum_{I=1}^h (S_i)} \quad (1)$$

where:

NO_{x 24-hr} = 24-hr daily average nitrogen oxides emission concentration level for the emissions averaging plan (ppmv, corrected to 7 percent oxygen).

NO_{x i} = 24-hr daily average nitrogen oxides emission concentration level for unit i (ppmv, corrected to 7 percent oxygen).

S_i = maximum demonstrated municipal waste combustor unit load for unit i (pounds per hour steam or feedwater flow as determined in the most recent dioxin/furan performance test).

h = total number of units included in the daily emissions average.

- c. For any day in which any unit included in an emissions averaging plan is offline, the owner or operator of the municipal waste combustor plant must still demonstrate compliance with the applicable limits specified in

Table 4 according to either 310 CMR 7.08(2)(f)4.d., or 310 CMR 7.08(2)(f)4.e., f. and g..

- d. Compliance with the applicable limits specified in Table 4 shall be demonstrated using the averaging procedure specified in 310 CMR 7.08(2)(f)4.b.
- e. For each of the municipal waste combustor units included in an emissions averaging plan, the nitrogen oxides emissions shall be calculated on a daily average basis. The calculated average shall not exceed the maximum daily nitrogen oxides emission level achieved by that municipal waste combustor unit on any of the days during which the emissions averaging plan was achieved with all municipal waste combustor units online during the most recent calendar quarter. The requirements of this paragraph do not apply during the first quarter of operation, during the first year under an emissions averaging plan.
- f. The average nitrogen oxides emissions (pounds per day) calculated according to 310 CMR 7.08(2)(f)4.g.iv. shall not exceed the average nitrogen oxides emissions (pounds per day) calculated according to 310 CMR 7.08(2)(f)4.g.
- g. The average nitrogen oxides emissions shall be calculated for all days during which the emissions averaging plan was implemented and achieved and during which all municipal waste combustor units were online. The average nitrogen oxides emissions (pounds per day) shall be calculated on a calendar year basis according to 310 CMR 7.08(2)(f)4.g.i. through iii..
 - i. For each municipal waste combustor unit included in an emissions averaging plan, the daily amount of nitrogen oxides emitted (pounds per day) shall be calculated based on the hourly nitrogen oxides data required under 310 CMR 7.08(2)(f)4.g., on the flue gas flow rate determined using Table 19-1 of EPA Reference Method 19 in 40 CFR, Part 60, Appendix A or an alternative Department approved method, and on the hourly average steam or feedwater flow rate.
 - ii. The daily total nitrogen oxides emissions shall be calculated as the sum of the daily nitrogen oxides emissions from each municipal waste combustor unit calculated under 310 CMR 7.08(2)(f)4.g.i..
 - iii. The average nitrogen oxides emissions (pounds per day) on a calendar year basis shall be calculated as the sum of all daily total nitrogen oxides emissions calculated under 310 CMR 7.08(2)(f)4.g.ii. divided by the number of calendar days for which a daily total was calculated.

iv. The average nitrogen oxides emissions shall be calculated for all days during which one or more of the municipal waste combustor units under the emissions averaging plan was offline. The average nitrogen oxides emissions (pounds per day) shall be calculated on a calendar year basis according to 310 CMR 7.08(2)(f)4.g.i. through iii..

5. Ammonia. No later than the dates specified in the emission control plan approval issued by the Department under 310 CMR 7.08(2)(j), any person subject to 310 CMR 7.08(2) utilizing ammonia or urea for NO_x control shall:

- a. conduct ammonia optimization testing;
- b. submit a report to the Department correlating NO_x emissions and ammonia slip;
- c. propose an ammonia emissions limit that the Department will review and may modify before incorporating in the unit's approval, pursuant to the procedures in 310 CMR 7.08(2)(j)7.;
- d. if using an ammonia continuous emission monitoring system to demonstrate compliance, obtain, at a minimum, valid hourly averages based on at least two data points per hour, for at least 90% of the operating hours per calendar quarter and 95% of the operating hours per calendar year that the affected facility is combusting municipal solid waste.

6. * * *

7. * * *

(g) * * *

1. * * *

2. * * *

3. * * *

4. * * *

5. Continuous Emissions Monitoring Systems Data.

(1) a. * * *1

* * *1 Note: MA DEP withdrew 310 CMR 7.08(2)(g)5.a. Continuous Emissions Monitoring Systems (CEMS) from the SIP (see Final Rule published 10/15/2020, 85 FR 65236).

- b. Carbon monoxide CEMS in accordance with Performance Specification 4 of 40 CFR Part 60, Appendix B, will satisfy the requirements in 310 CMR 7.08(2)(g).
6. Compliance Testing Schedule. Any person subject to 310 CMR 7.08(2) shall conduct compliance testing for all designated pollutants every nine months for each municipal waste combustor unit(s). Compliance testing for dioxin/furan and mercury shall be as specified in 310 CMR 7.08(2)(g) 1. and 2.
7. Continuous Emissions Monitoring for Particulate Matter. In place of particulate matter testing with EPA Reference Method 5, any person subject to 310 CMR 7.08(2) may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring particulate matter emissions discharged to the atmosphere and record the output of the system. Any person subject to 310 CMR 7.08(2) who elects to continuously monitor particulate matter emissions in place of testing shall comply with the requirements specified in 40 CFR 60.58b(c)(10)(i) through (xiv) as last amended May 10, 2006. Any person subject to 310 CMR 7.08(2) who elects to continuously monitor particulate matter emissions in place of testing is not required to complete performance testing for particulate matter and is not required to continuously monitor opacity as specified in 40 CFR 60.58b(c)(9) and (c)(8) as last amended May 10, 2006.
8. Continuous Emissions Monitoring for Cadmium and Lead. In place of cadmium and lead testing with EPA Reference Method 29, any person subject to 310 CMR 7.08(2) may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring cadmium and lead emissions discharged to the atmosphere and record the output of the system according to the provisions of 40 CFR 60.58b(n) and (o) as last amended May 10, 2006.
9. Continuous Emissions Monitoring for Hydrogen Chloride. In place of hydrogen chloride testing with EPA Reference Method 26 or 26A, any person subject to 310 CMR 7.08(2) may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring hydrogen chloride emissions discharged to the atmosphere and record the output of the system according to the provisions of 40 CFR 60.58b(n) and (o) as last amended May 10, 2006.

(h) Recordkeeping - Any person subject to 310 CMR 7:08(2) shall comply with the recordkeeping requirements of 40 CFR 60.59b(d), as last amended May 10, 2006, the provisions of which are hereby incorporated by reference, and maintain records including, but not limited to, the information specified in 310 CMR 7.08(2)(h), as applicable, for each municipal waste combustor unit. All records shall be retained at the facility for at least five years.

1. The calendar date of each record.
2. The emission concentrations and operating parameters measured using continuous monitoring systems. The measurements specified below shall be recorded and shall be available for submittal to the Department or for onsite review by an inspector:
 - a. * * *
 - b. * * *
 - c. All one-hour average nitrogen oxides emission concentrations as specified under 40 CFR 60.58b(h) as last amended May 10, 2006.
 - d. * * *
 - e. * * *
 - f. All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under 40 CFR 60.58b(h) as last amended May 10, 2006, including the highest level recorded.
 - g. * * *
 - h. * * *
 - i. As applicable, all one hour average and 24-hour daily (block) average particulate matter emissions concentrations, as specified under 40 CFR 60.58b(c) as last amended May 10, 2006, including the highest level recorded.
 - j. As applicable, all one hour average and 24-hour daily arithmetic average mercury, cadmium, lead or hydrogen chloride emissions concentrations, as specified under 40 CFR 60.58b(n), as last amended May 10, 2006, including the highest level recorded.

- k. As applicable, all integrated two-week dioxin/furan and integrated 24-hour mercury emissions concentrations, as specified under 40 CFR 60.58b(p), as last amended May 10, 2006, including the highest level recorded.
3. Identification of the calendar dates when any of the average emission concentrations or emission percent reductions, opacity levels, or operating parameters recorded under 310 CMR 7.08(2)(h)2., exceed the applicable limits, with detailed specific reasons for such exceedances and a description of corrective actions taken.
4. * * *
5. Identification of the calendar dates and time periods for which the minimum number of hours of any of the data specified below have not been obtained including reasons for not obtaining sufficient data and a description of corrective actions taken:
 - a. * * *
 - b. Nitrogen oxides emissions data.
 - c. * * *
 - d. * * *
 - e. For any person subject to 310 CMR 7.08(2) who elects to continuously monitor particulate matter, cadmium, lead, mercury or hydrogen chloride emissions instead of using EPA manual test methods, particulate matter, cadmium, lead, mercury or hydrogen chloride emissions data.
 - f. For any person subject to 310 CMR 7.08(2) who elects to use continuous automated sampling systems for dioxins/furans or mercury instead of EPA manual test methods, dates and times when the sampling systems were not operating or were not collecting a valid sample.
6. Identification of each occurrence that sulfur dioxide, nitrogen oxides, and, as applicable, particulate matter, cadmium, lead, mercury, hydrogen chloride or dioxin/furan emissions data, or operational data (*e.g.*, carbon monoxide emissions, unit load, and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, along with detailed and specific reasons for excluding the data.

7. The results of daily drift tests and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides, and carbon monoxide continuous emission monitoring systems, as required under 40 CFR, Part 60, Appendix F, Procedure 1. For any person who elects to continuously monitor or sample instead of using EPA manual test methods, the results of daily drift tests and quarterly accuracy determinations for particulate matter as required under 40 CFR 60: *Appendix F*, Procedure 2, the results of all quality evaluations, such as daily drift tests and periodic accuracy determinations for cadmium, lead, mercury or hydrogen chloride, specified in the approved site-specific performance evaluation test plan required by 40 CFR 60.58b(o)(5) as last amended May 10, 2006, and all continuous automated dioxin/furan or mercury sampling systems quality evaluations specified in the approved site-specific performance evaluation test plan required by 40 CFR 60.58b(q)(5) as last amended May 10, 2006.
8. Identification of each occurrence of a start-up, shut-down or malfunction, including the specific reasons for each occurrence, date, time, and unit involved. Average emissions concentrations or percent reductions, or operating parameters recorded under 310 CMR 7.08(2)(h)2., shall be recorded during start-up, shut-down or malfunction.
9. * * *
10. * * *
11. Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who are certified by ASME (Operator Certification and Provisional Certification), including the dates of initial and renewal certifications and documentation of current certification. Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course if required. Records of when a certified operator is temporarily off site, pursuant to 310 CMR 7.08(2)(h)11.a. and b.
 - a. If the certified chief facility operator and certified shift supervisor are off-site for more than 12 hours, but for two weeks or less, and no other certified operator is onsite, record the dates that the certified chief facility operator and certified shift supervisor were off-site.

- b. When all certified chief facility operators and certified shift supervisors are off-site for more than two weeks and no other certified operator is on-site, keep records of:
 - i. Time of day that all certified persons are off-site.
 - ii. The conditions that cause those people to be off-site.
 - iii. The corrective actions taken by the owner or operator of the affected facility to ensure a certified chief facility operator or certified shift supervisor is on-site as soon as practicable.
 - iv. Copies of the written reports submitted every four weeks that summarize the actions taken by the owner or operator of the affected facility to ensure that a certified chief facility operator or certified shift supervisor will be on-site as soon as practicable.

12. Records showing the names of the persons who have completed a review of the operating manual as required by 310 CMR 7.08(2)(f)7.d. including the date of the initial review and subsequent annual reviews.

13. * * *

- (i) Reporting Requirements - Any person subject to 310 CMR 7.08(2) shall submit an initial performance report as well as an annual report pursuant to 40 CFR 60.59b(g) as last amended May 10, 2006, the provisions of which are hereby incorporated by reference that includes, but is not limited to, the information specified in 310 CMR 7.08(2)(i)1., as applicable. Any person subject to 310 CMR 7.08(2) shall submit a semiannual report pursuant to 40 CFR 60.59b(h) as last amended May 10, 2006, the provisions of which are hereby incorporated by reference that includes, but is not limited to, the information specified in 310 CMR 7.08(2)(i)2. for any recorded pollutant or parameter that does not comply with the emission limits as set forth in 310 CMR 7.08(2). In meeting the reporting requirements of 310 CMR 7.08(2)(i)1. and 310 CMR 7.08(2)(i)2., any person subject to 310 CMR 7.08(2) shall report the information in a format determined by the Department that is designed to be understandable and informative to the public. The information shall be submitted in written format and electronic format.

1. Annual Reporting Requirements^a - The information specified in 310 CMR 7.08(2)(1)1.a. through h. shall be reported:

- a. 310 CMR 7.08(2)(h)2.a., e. through k. for the highest emission levels recorded.

- b. * * *
 - c. 310 CMR 7.08(2)(h)5. - 6., including 40 CFR 60.59b(g)(1)(iv) and (v), as last amended May 10, 2006.
 - d. 310 CMR 7.08(2)(h)8. - 10.
 - e. Summary of 310 CMR 7.08(2)(i)1.a. through d. for the previous year.
 - f. The performance evaluation of the continuous emission monitoring system using the applicable performance specifications in appendix B of 40 CFR, Part 60.
 - g. * * *
 - h. Documentation of periods when all certified chief facility operators and certified shift supervisors are off site for more than 12 hours.
2. Semi-Annual Reporting Requirements ^b - The information specified in a. through e. below shall be reported:
- a. 310 CMR 7.08(2)(h)2.a., e. through h. for each date recorded in 310 CMR 7.08(2)(h)3.
 - b. 310 CMR 7.08(2)(h)3.
 - c. * * *
 - d. * * *
 - e. * * *

^a Annual reports shall be submitted no later than February 15 of each year following the calendar year in which the data were collected.

^b Semiannual reports shall be submitted according to the schedule specified: (1) If data reported in accordance with section 310 CMR 7.08(2)(i)2 were collected during the first calendar half, then the report shall be submitted on or before August 1 following the first calendar half; (2) If data reported in section 310 CMR 7.08(2)(i)2 were collected during the second calendar half, then the report shall be submitted on or before February 15 following the second calendar half.

^c * * *

3. Reporting Requirements for Optional Continuous Monitoring and Continuous Automated Sampling. Any person subject to 310 CMR 7.08(2) electing continuous emissions monitoring for particulate matter, mercury, lead, cadmium or hydrogen chloride, or continuous automated sampling for dioxin/furan or mercury, in lieu of manual sampling, shall comply with the applicable notification requirements of 40 CFR 60.59b(m) and reporting requirements of 40 CFR 60.59b(n)(12) and 40 CFR 60.59b(o)(12), as last amended May 10, 2006.
- (j) Emission Control Plan.
1. General Applicability - Any person subject to 310 CMR 7.08(2) shall submit an emission control plan (ECP) application to the Department on or before September 9, 2018 on a form provided by the Department to include new or amended applicable requirements in 310 CMR 7.08(2)(f). All ECP applications are subject to the fee regulations and approval timelines contained in 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*.
 2. Emission Control Plan Requirements. The requirements of the ECP are contained in the ECP application but at a minimum, the ECP shall contain sufficient information (*e.g.*, control efficiency, specifications, standard operating and maintenance procedures) for any control equipment used to comply with 310 CMR 7.08.
 3. Compliance Demonstration. Any person subject to 310 CMR 7.08(2) must include in the ECP application an affirmative demonstration that any facility(ies) in Massachusetts, owned and operated by such persons (or by an entity controlling, controlled, by or under common control with such person) that is subject to 310 CMR 7.00 and 310 CMR 19.00 is in compliance with, or on a Department approved compliance schedule to meet, all provisions of 310 CMR 7.00 and 310 CMR 19.00 and any plan approval, order, notice of noncompliance or permit issued thereunder;
 4. Public Comment On Emission Control Plans.
 - a. Upon receipt of an ECP application, the Department will post a notice of public hearing on a public website identified by the Department (which may be the Department's own website), for the duration of the public comment period. The public hearing will be held 30 days after the publication of the hearing notice. The Department shall allow for a 30 day public comment period following the published notice.
 - b. After the public hearing and the close of the public comment period, the Department will review all of the information submitted and shall issue

either a disapproval of the application or issue a draft emission control plan approval.

b. Upon issuance of the draft emission control plan approval, the Department shall:

i. Provide a 30-day period for submittal of public comment;
ii. Post on a public website identified by the Department (which may be the Department's own website), for the duration of the public comment period, the following:

- a. Notice of availability of the Department's proposed decision to approve or deny the ECP application and information on how to submit public comment;
- b. The Department's proposed decision to approve or deny the ECP application;
- c. Information on how to access the administrative record for the Department's proposed decision to approve or deny the ECP application.

iii. Send a copy of the notice required under 310 CMR 7.08(2)(j)4.c.ii.a. to EPA.

d. After the close of public comment period, the Department will issue a final approval or disapproval of the emission control plan.

5. Additional Requirements. Additional requirements may be included in the approval if the Department determines that the emissions from a municipal waste combustor plant's unit(s) alone or cumulatively with other municipal waste combustor plant's unit(s) cause or contribute to a condition of air pollution or a violation of any other regulation. Such requirements include but are not limited to emissions limits on air contaminants, and additional stack testing or emission monitoring requirements.

The Department may modify the ECP at any time if the Department determines that a municipal waste combustor plant's unit(s) alone or cumulatively with other municipal waste combustor plant's unit(s) cause or contribute to a condition of air pollution or a violation of any other regulation. Such modification must comply with the requirements in 310 CMR 7.08(2)(j)7.

6. Compliance Schedule. The ECP shall incorporate a compliance schedule that at a minimum contains the requirements in 310 CMR 7.08(2)(k).

7. Modification to the ECP.
- a. If the Department proposes to modify a municipal waste combustor plant's emission control plan, the Department shall:
 - i. Provide a 30-day period for submittal of public comment;
 - ii. Post on a public website identified by the Department (which may be the Department's own website), for the duration of the public comment period, the following:
 - a. Notice of availability of the Department's proposed decision to approve or deny the ECP modification and information on how to submit public comment;
 - b. The Department's proposed decision to approve or deny the ECP modification;
 - c. Information on how to access the administrative record for the Department's proposed decision to approve or deny the ECP modification.
 - iii. Send a copy of the notice required under 310 CMR 7.08(2)(j)7.a.ii.a. to EPA.
 - b. After the close of the public comment period, the Department will issue a final approval or disapproval of the modified ECP.
- (k) Schedule. Municipal waste combustor unit(s) subject to 310 CMR 7.08(2) shall be in full compliance with the applicable requirements of 310 CMR 7.08(2) after March 9, 2018, except:
- 1. Nitrogen oxides emission limits are to be complied with by the dates specified in 310 CMR 7.08(2)(f)3.: *Table 3*, and in no case later than March 10, 2020.
 - 2. If a municipal waste combustor unit(s) cannot comply with the NO_x emission limit in 310 CMR 7.08(2)(f)3.: *Table 3*, the person subject to 310 CMR 7.08(2) may apply in the emission control plan application due under 310 CMR 7.08(2)(j) for a source specific alternative NO_x emission limit, not to exceed a 24-hour daily arithmetic average of 185 parts per million by volume, dry basis, corrected to 7% oxygen. Such emission control plan application must evaluate each of the following NO_x controls, where it may be applied, and its technological and economic feasibility.
 - a. low-NO_x burners;

- b. close coupled and separated overfire air;
 - c. flue gas recirculation;
 - d. steam/water injection;
 - e. dry low-NO_x combustors;
 - f. fuel emulsification;
 - g. selective noncatalytic reduction (SNCR);
 - h. selective catalytic reduction (SCR);
 - i. nonselective catalytic reduction (NSCR);
 - j. use of emission reduction credits (ERCs) certified by the Department pursuant to 310 CMR 7.00: *Appendix B* (3), or pursuant to the interstate trading provisions at 310 CMR 7.00: *Appendix B(3)(f)*; and
 - k. other innovative technologies available to reduce NO_x.
3. * * *