=RD3276

Pollution Control Agency

Proposed Permanent Rules Relating to Waste Combustors

PERMITTING

7005.0100 DEFINITIONS.

For text of subps 1 to 11c, see M.R.

Subp. 23a. **Malfunction.** "Malfunction" means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown are not considered malfunctions.

For text of subps 24 to 45, see M.R.

7007.0200 SOURCES REQUIRED OR ALLOWED TO OBTAIN A PART 70 PERMIT.

For text of subps 1 to 3, see M.R.

Subp. 4. **Solid waste incinerators, waste combustors.** A solid waste incineration unit, or waste combustor ~~as defined in part 7011.1201, subpart 46,~~ must obtain a permit under this part if it is:

A. a major source under subpart 2;

B. required to obtain a permit under section 129(e) of the act (Solid Waste Combustion, Permits); ~~or~~

C. a ~~new or existing~~ Class A or Class I waste combustor ~~for which a performance standard has been promulgated under section 129(a)(1) of the act.~~ as defined in part 7011.1201;

D. a small municipal waste combustor as defined in part 7011.4000;

E. a medical waste combustor as defined in part 7011.5000;

F. an air curtain incinerator as defined in part 7011.5500; or

G. a commercial or industrial solid waste incinerator as defined in part 7011.5600.

For text of subps 5 and 6, see M.R.

7007.0250 SOURCES REQUIRED TO OBTAIN A STATE PERMIT.

For text of subps 1 to 5, see M.R.

Subp. 6. **Waste combustors.** A waste combustor, as defined in part 7011.1201, must obtain a permit under this part unless it is:

A. ~~a Class IV waste combustor located at a hospital; or~~

~~B.~~ a waste combustor subject to the exemptions in part 7011.1215, subpart 3; or

B. required to obtain a part 70 permit under part 7007.0200, subpart 4.

~~Notwithstanding the exemptions in items A and B, a Class IV waste combustor that does not comply with the stack height requirements of part 7011.1235, subpart 1, but uses alternative techniques to achieve equivalent ambient pollution concentrations, must obtain a permit under this part. The permit obtained shall not be a registration permit under parts 7007.1110 to 7007.1130.~~

For text of subp 7, see M.R.

7007.0400 PERMIT REISSUANCE APPLICATIONS AFTER TRANSITION; NEW SOURCE AND PERMIT AMENDMENT APPLICATIONS; APPLICATIONS FOR SOURCES NEWLY SUBJECT TO A PART 70 OR STATE PERMIT REQUIREMENT.

Subpart 1. **Requirement for application.** Applications for reissued permits after the transition period shall be considered timely if they meet the requirements of subpart 2. Applications for permits for new stationary sources or amendments shall be considered timely if they meet the requirements of subpart 3. An application for a total facility permit from a stationary source that, because of a modification or change at the stationary source, becomes subject to the requirement to obtain a part 70 or state permit for the first time after the application deadline in part 7007.0350, subpart 1, and which was issued a permit for the installation and operation of the change or modification under part 7007.0750, subpart 5, shall be considered timely if it meets the requirements of subpart 4.

An application for a part 70 permit for a commercial and industrial solid waste combustor, medical waste combustor, or air curtain incinerator that, because of the adoption of this part, becomes subject to the requirement to obtain a part 70 permit for the first time after the application deadline in part 7007.0350, subpart 1, is considered timely if it meets the requirements of subpart 5.

For text of subps 2 to 4, see M.R.

Subp. 5. **Application for permits for stationary sources subject to federal standards promulgated under section 129 of the act.** Sources subject to the standards of performance as described in the following table are required to obtain a part 70 permit. The owner or operator of these emission facilities operating on the effective date of this part shall submit applications for a part 70 total facility permit that incorporates the standards of performance as follows:

Stationary source	**Subject to the following standards**	**Shall submit application**
small municipal waste combustors	parts 7011.4000 to 7011.4035	180 days from the effective date of this part
air curtain incinerators	parts 7011.5500 to 7011.5515	545 days from the effective date of this part

7007.0501 ADDITIONAL CONTENTS REQUIRED IN A PERMIT APPLICATION FOR A WASTE COMBUSTOR.

For text of subps 1 to 8, see M.R.

Subp. 9. **Waste management plans for new medical waste combustors.** If the owner or operator of a new medical waste combustor unit will rely on waste management practices to meet the emission limits for PCDD/PCDF and/or hydrogen chloride, then the waste management plan required in part 7011.1239, subpart 2, must be submitted with the permit application.

STANDARDS OF PERFORMANCE

7011.1201 DEFINITIONS.

For text of subps 1 to 11, see M.R.

Subp. 12. **See repealer.**

For text of subp 13, see M.R.

Subp. 14. **Class II waste combustor.** "Class II waste combustor" means that the design capacity for a waste combustor unit is 15 x 10^6 Btu/hr or more and less than 93.75 x 10^6 Btu/hr, and ~~that construction of the unit is commenced after September 20, 1994, or modification or reconstruction is commenced after June 19, 1996~~ the waste combustor is issued a permit for construction after December 20, 1989.

Subp. 15. **Class III waste combustor.** "Class III waste combustor" means that the waste combustor unit is not a commercial and industrial solid waste incinerator as defined in part 7011.5600, its design capacity for a waste combustor unit is 3.0 x 10^6 Btu/hr or more and less than 15 x 10^6 Btu/hr, the waste combustor burns ten percent or less by weight of medical waste, and the waste combustor is issued a permit for construction after December 20, 1989.

Subp. 16. **Class IV waste combustor.** "Class IV waste combustor" means that the design capacity for a waste combustor unit is less than 3.0 x 10^6 Btu/hr and does not burn infectious wastes or wastes generated by hospitals.

For text of subps 17 to 26, see M.R.

Subp. 27. **See repealer.**

For text of subps 28 to 45a, see M.R.

Subp. 45b. **Unadulterated wood.** "Unadulterated wood" means wood or wood products that have not been painted, pigment-stained, or pressure-treated with compounds such as chromate copper arsenate, pentachlorophenol, and creosote. Plywood, particle board, oriented strand board, and other types of wood products bound by glues and resins are included in the definition of unadulterated wood.

Subp. 46. **Waste combustor.** "Waste combustor" means any emissions unit ~~or emission facility~~ where mixed municipal solid waste, solid waste, or refuse-derived fuel is combusted, and includes incinerators, energy recovery facilities, or other combustion devices. A metals recovery incinerator is a waste combustor. A combustion device combusting primarily unadulterated wood, or at least 70 percent fossil fuel and wood in combination with up to 30 percent papermill wastewater treatment plant sludge, is not a waste combustor. A soil treatment facility, paint burn-off oven, wood heater, or residential fireplace is not a waste combustor.

Subp. 48. **See repealer.**

For text of subps 49 and 50, see M.R.

7011.1215 APPLICABILITY OF STANDARDS OF PERFORMANCE FOR WASTE COMBUSTORS.

Subpart 1. **Waste combustors.** A person who constructs, modifies, reconstructs, or operates a waste combustor shall comply with parts 7011.1201 to 7011.1290, except as provided in subparts 2, 2a, 2b, 2c, and 3.

For text of subps 2 to 2b, see M.R.

Subp. 2c. **Small medical waste combustors.** If the New Source Performance Standards for small medical waste combustors, Code of Federal Regulations, title 40, part 60, subpart AAAA,

applies to a Class II waste combustor, the unit must comply with parts 7011.4000 to 7011.4035. If a New Source Performance Standard for a medical waste incinerator applies to a Class II waste combustor, the unit must comply with parts 7011.5000 to 7011.5025.

Subp. 3. **Exemptions from standards of performance for crematoria.** Crematoria, pathological waste combustors, and waste combustors used solely for the disposal of animal carcasses are exempt from the requirements of parts ~~7011.1210~~ 7011.1215 to 7011.1290~~,~~ and ~~shall meet the conditions of this subpart~~ 7011.5000 to 7011.5035.

For text of items A to C, see M.R.

Subp. 3a. **Exemptions from standards of performance for biomass fuels.** Boilers and process heaters combusting materials that are identified in this subpart are exempt from the requirements of parts 7011.1215 to 7011.1290. Items A to G identify categories of materials accompanied by common examples. These materials may be physically altered from their original state, but must not be chemically altered or treated:

A. forest residues, including logging residues; rough, rotten, and salvageable dead wood; excess saplings; and small pole trees;

B. primary wood mill residues, including bark, coarse residues such as chunks and slabs, and fine residues such as shavings and sawdust;

C. agricultural residues, including stalks, stover, straw, hulls, cobs, husks, shells, and stems;

D. dedicated energy crops, including short rotation woody crops such as hybrid poplar and willow and herbaceous crops such as switchgrass;

E. finished agricultural products, including ethanol, dry distiller grains, and corn;

F. urban wood wastes, including yard trimmings, site clearing wastes, pallets, and wood packing, but not including demolition debris as defined in part 7035.0300, subpart 30, or construction debris as defined in Minnesota Statutes, section 115A.03, subdivision 7; and

G. poultry litter, excluding peat-based bedding.

Subp. 4. **Standards.** The standards of parts 7011.1227, 7011.1228, 7011.1229, 7011.1230, 7011.1231, 7011.1233, 7011.1240, subpart 2, and 7011.1272, subpart 2, apply at all times when waste is being continuously burned, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction does not exceed three hours. Fugitive emissions standards applicable to ash conveying systems do not apply during maintenance and repair of ash conveying systems. ~~"Malfunction" means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown are not considered malfunctions.~~

The start-up period commences when the waste combustor

begins the continuous burning of solid waste and does not include any warm-up period when the waste combustor is combusting fossil fuel or other solid fuel.

Continuous burning is the continuous, semicontinuous, or batch feeding of 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 solid waste solely to provide thermal protection of the grate or hearth during the start-up period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.

For text of subp 5, see M.R.

Subp. 5a. **Transition for Class C waste combustors.** A Class C waste combustor shall demonstrate compliance with parts 7011.1201 to 7011.1290 by July 17, 1998. Once a Class C waste combustor unit demonstrates compliance with applicable requirements of parts 7011.4000 to 7011.4035, the emission limits in part 7011.1227 applicable to Class C waste combustors no longer apply.

For text of subp 6, see M.R.

7011.1220 PROHIBITIONS.

Subpart 1. **Prohibited waste combustors.** No person shall operate a ~~Class IV~~ waste combustor with a design capacity of 3,000,000 Btu/hr or less, unless that waste combustor is:

A. a waste combustor located at a hospital;

B. a Class IV waste combustor located at a crematorium, pathological waste combustor, or waste combustor used solely for the disposal of animal carcasses; or

C. a metals recovery incinerator.

For text of subp 2, see M.R.

7011.1225 STANDARDS OF PERFORMANCE FOR WASTE COMBUSTORS.

Subpart 1. **Class A or C waste combustor.**

For text of items A and B, see M.R.

C. The standards of performance for new medical waste combustors in parts 7011.5000 to 7011.5025 do not apply to Class A or C waste combustors.

Subp. 2. **Class I or II waste combustors.** No owner or operator of a Class I or II waste combustor shall cause to be emitted into the atmosphere from each waste combustor unit gases in excess of the standards of performance shown in part 7011.1229 or 7011.1230. The standards of performance for medical waste combustors in parts 7011.5000 to 7011.5025 do not apply to Class I or II waste combustors.

Subp. 3. **Class III waste combustors.** No owner or operator of a Class III waste combustor shall cause to be emitted into the atmosphere from each waste combustor unit gases ~~that contain particulate matter, PCDD/PCDF, mercury, carbon monoxide, or opacity~~ in excess of the standards of performance in part 7011.1231. Emissions shall be calculated under standard conditions, corrected to seven percent oxygen on a dry volume basis. An owner or operator may determine compliance with the emission limitations using carbon dioxide measurements corrected to an equivalent of seven percent oxygen. The relationship between carbon dioxide and oxygen shall be established at each

compliance test.

Subp. 4. **See repealer.**

Subp. 5. **Class IV waste combustors.** No owner or operator of a Class IV waste combustor shall cause to be emitted into the atmosphere from each waste combustor unit gases that contain particulate matter, carbon monoxide, or opacity in excess of those concentrations in part 7011.1233. Emissions, except opacity, shall be calculated under standard conditions, corrected to seven percent oxygen on a dry volume basis. An owner or operator may determine compliance with the emission limitations using carbon dioxide measurements corrected to an equivalent of seven percent oxygen. The relationship between carbon dioxide and oxygen shall be established at each compliance test.

7011.1231 TABLE 3.

The table in this part governs emission limitations for Class III ~~and D~~ waste combustors.

Size	Class III	~~Class D~~
Particulate Matter		
Total	0.020 gr/dscf	~~0.035 gr/dscf~~
PCDD/PCDF		
Total	60 ng/dscm	~~200 ng/dscm~~
Carbon monoxide		
Modular	50 ppm	~~50 ppm~~
~~RDF~~	~~275 ppm~~	~~275 ppm~~
All other combustion technologies	157 ppm	
Opacity	10%	~~20%~~
Mercury		
Short-term	~~500~~ 470 \Am\ag/dscm ~~or 85% removal~~	
Long-term	300 \Am\ag/dscm or 85% removal	
Lead	40 \Am\ag/dscm	
Cadmium	4 \Am\ag/dscm	
Hydrogen Chloride	62 ppm	
Sulfur Dioxide	20 ppm	

7011.1233 TABLE 4.

The table in this part governs emissions from Class IV waste combustors.

~~Use~~	~~Hospital~~	~~Metal Recovery~~
Particulate Matter		

Total	~~0.08 gr/dscf~~	0.035 gr/dscf
Opacity	~~20%~~	20%
Carbon Monoxide	~~50 ppm~~	50 ppm

7011.1255 PLAN TO SEPARATE SOLID WASTES WHICH CONTAIN MERCURY.

Subpart 1. **Preparation of a mercury waste separation plan.** If a mercury waste separation plan is required by part 7007.0501 ~~or 7011.1210~~, the waste combustor owner or operator must prepare a plan to identify, separate, and collect before combustion solid wastes which contain mercury.

For text of subps 2 and 3, see M.R.

7011.1260 CONTINUOUS MONITORING.

For text of subps 1 and 2, see M.R.

Subp. 3. **Continuous monitors.** The owner or operator of a waste combustor shall install, calibrate, maintain, and operate a continuous monitoring system when burning solid waste. Monitoring systems that continuously read and record the following outputs shall be installed:

A. in Class II, III, A, C, or D waste combustors:

For text of subitems (1) to (4), see M.R.

For text of items B and C, see M.R.

For text of subps 4 and 4a, see M.R.

Subp. 5. **Installation and operation of continuous monitors.** The owner or operator of a waste combustor with continuous monitors shall comply with the requirements of parts 7017.1002 to 7017.1220, except as provided in items A to I.

For text of items A to C, see M.R.

D. When continuous emissions data for sulfur dioxide removal efficiency, sulfur dioxide or nitrogen oxide emission rates, or carbon monoxide are not obtained because of monitor breakdowns, repairs, calibration checks, and zero and span adjustments, emission data calculations to determine compliance shall be made using the following methods:

(1) for sulfur dioxide removal efficiency or sulfur dioxide or nitrogen oxide emission concentrations, Code of Federal Regulations, title 40, part 60, Appendix A, Method 19, as amended, to provide valid emission data in order to meet the requirements of item B~~. Other monitoring systems or other data collection methods may be used as approved by the commissioner~~; and

(2) for carbon monoxide, Code of Federal Regulations, title 40, part 60, Appendix A, Method 10, as amended, to provide valid emission data in order to meet the requirements of item B. ~~Other monitoring systems or other data collection methods may be used as approved by the commissioner.~~

For text of items E to I, see M.R.

For text of subps 6 and 7, see M.R.

7011.1265 REQUIRED PERFORMANCE TESTS, METHODS, AND PROCEDURES.

For text of subpart 1, see M.R.

Subp. 2. **Performance test methods for criteria pollutants.** An owner or operator of a waste combustor required to conduct performance tests for particulate matter, ~~sulfur dioxide, or nitrogen oxides~~ opacity, carbon monoxide, and

fugitive ash shall use test methods as described in items A to D.

For text of items A to D, see M.R.

For text of subps 3 to 5, see M.R.

Subp. 6. **See repealer.**

For text of subps 7 to 10, see M.R.

Subp. 11. **Exceedances of emission limits.** If accurate and valid data results of a performance test demonstrate an exceedance of a standard of performance as described in part 7011.1225 or in the waste combustor's air emission facility permit after normal start-up, the waste combustor owner or operator shall undertake the actions in items A to D.

For text of items A and B, see M.R.

C. If the commissioner determines that compliance has not been achieved within 60 days of the initial report of exceedance, the waste combustor shall be shut down.

D. If shutdown was required under item C, the waste combustor may be restarted under the conditions specified by the commissioner. The owner or operator must notify the commissioner in writing of the date on which the owner or operator plans to start-up and to begin compliance testing. Notification shall be at least ~~ten~~ seven days in advance of the compliance test date.

7011.1280 OPERATOR CERTIFICATION.

Subpart 1. **Scope.** The commissioner shall certify a person provided the person submits an application and can demonstrate the completion of:

A. for operators of Class I, II, A, C, or small municipal waste combustor units, ASME provisional certification as described in Standard for the Qualification and Certification of Resource Recovery Facility Operators, American Society of Mechanical Engineers (ASME) QRO-1-1994, incorporated by reference in part 7011.1205, for chief facility operators, shift supervisors, and control room operators of municipal waste combustors; ~~or~~

B. for operators of medical waste combustors, ASME certification as described in Standards of the Qualification and Certification of Medical Waste Incinerator Operators, American Society of Mechanical Engineers QMO-1-1993, July 1993, incorporated by reference in part 7011.5025, subpart 2; or

C. the coursework and examination program set forth in subpart 3.

Subp. 1a. **Commercial/industrial solid waste incinerator operators.** For the purposes of applying the requirements of this part, a commercial/industrial solid waste incinerator is a "non-Class IV" waste combustor.

Subp. 2. **Personnel who shall be certified.** ~~The following personnel shall be certified through the process established in this part:~~

~~A. for Class I, II, III, A, C, or D waste combustors, the chief facility operator and shift supervisors; and~~

~~B. for Class IV waste combustors, the operator supervisor.~~ At each waste combustor facility except for Class IV facilities, the chief facility operator and shift supervisor must be certified. The operator supervisor at Class IV waste

combustor facilities must be certified.

Subp. 3. **Requirements for operator certification.** To be certified, a person must demonstrate the skill, knowledge, and experience necessary to operate a waste combustor, by meeting the criteria of item A or B.

For text of item A, see M.R.

B. A certified operator of a ~~Class I, II, III, A, C, or D~~ non-Class-IV waste combustor shall comply with the requirements in subitem (1) or (2).

(1) Persons who possess a Minnesota Department of Labor and Industry boiler license of at least second class engineer, Grade B, shall:

(a) have one year of experience operating a steam generation plant or ~~Class I, II, III, A, C, or D~~ non-Class-IV waste combustor at the licensure level of at least second class engineer, Grade B, and complete at least 24 hours of training approved by the commissioner which are designed to ensure competency to operate ~~a Class I, II, III, A, C, or D~~ the waste combustor the person is seeking certification to operate;

(b) complete the certification process described in subpart 4; and

(c) pass the examination described in subpart 5.

(2) Persons who do not meet the qualifications of subitem (1), unit (a), shall:

(a) have three years of experience operating a ~~Class I, II, III, A, C, or D~~ non-Class-IV waste combustor or three years experience in power generation, and complete at least 24 hours of training approved by the commissioner which are designed to ensure competency to operate ~~a Class I, II, III, A, C, or D~~ the waste combustor the person is seeking certification to operate;

(b) complete the certification process described in subpart 4; and

(c) pass the examination described in subpart 5.

For text of subp 4, see M.R.

Subp. 5. **Examinations.**

For text of item A, see M.R.

B. For certification of a person to operate a ~~Class I, II, III, A, C, or D~~ non-Class-IV waste combustor, the examination shall be in three areas, divided as follows:

For text of subitems (1) to (3), see M.R.

For text of items C to E, see M.R.

For text of subp 6, see M.R.

Subp. 7. **Renewal.**

A. A certified individual shall apply for certificate renewal 30 days prior to certificate expiration. Renewal certificates shall be issued by the commissioner when the commissioner receives the application, along with evidence that the person has, during the preceding three years, earned credit for attending training courses offered by the agency or other training courses approved by the commissioner as described in subpart 8, including personnel training described in part

7011.1275, for the number of hours as identified as follows:

(1) ~~Class I, II, III, A, C, or D~~ a non-Class-IV waste combustor, 24 hours; and

(2) Class IV waste combustor, eight hours.

An individual whose certificate has expired must comply with item B or C.

For text of items B and C, see M.R.

For text of subps 8 to 11, see M.R.

STANDARD OF PERFORMANCE FOR SMALL MUNICIPAL WASTE COMBUSTORS

7011.4000 DEFINITIONS.

Subpart 1. **Scope.** The terms used in parts 7011.4000 to 7011.4035 have the meanings given them in this part.

Subp. 2. **Small municipal waste combustor unit.** "Small municipal waste combustor unit" means a municipal waste combustion unit that has the capacity to combust at least 35 tons per day but no more than 250 tons per day of municipal solid waste or refuse-derived fuel.

7011.4005 STANDARDS APPLICABLE TO SMALL MUNICIPAL WASTE COMBUSTORS.

Subpart 1. **Existing small municipal waste combustor units.** The owner or operator of a small municipal waste combustor unit constructed before August 30, 1999, shall comply with parts 7011.4000 to 7011.4030 90 days after the effective date of those parts. If the owner or operator elects to cease operating the small municipal waste combustor unit rather than comply, the owner shall cease operating the waste combustor 30 days after the effective date of those parts.

Subp. 2. **New small municipal waste combustor units.** The owner or operator of a small municipal waste combustor unit constructed after August 30, 1999, or reconstructed or modified after June 6, 2001, shall comply with the standards incorporated by reference in part 7011.4035. The owner or operator must also comply with the applicable requirements in parts 7011.4000 to 7011.4035.

Subp. 3. **Applicability of waste combustor rules.** The owner or operator of a small municipal waste combustor is subject to the conditions of parts 7011.1201 to 7011.1290 at the time of this rule.

The conditions of parts 7011.1201 to 7011.1290 continue to apply to small municipal waste combustors under the following conditions:

A. where the limits of parts 7011.4030 to 7011.4035 are more restrictive than parts 7011.1201 to 7011.1290, the federal rule applies; and

B. where there is a condition in parts 7011.1201 to 7011.1290 that is not in parts 7011.4030 to 7011.4035 or where parts 7011.1201 to 7011.1290 are more restrictive, state rules apply.

Subp. 4. **Mercury emission limits.** The owner or operator of a small municipal waste combustor must comply with the mercury emission limits in this subpart. Emissions must be calculated under standard conditions corrected to seven percent oxygen on a dry basis.

A. Mercury (long-term), 0.060 mg/dscm or 85 percent removal.

B. Mercury (short-term), 0.080 mg/dscm or 85 percent removal.

7011.4010 DEFINITION OF ADMINISTRATOR.

For purposes of administering parts 7011.4000 to 7011.4035, Code of Federal Regulations, title 40, sections 60.1585 to 60.1935, and Code of Federal Regulations, title 40, sections 60.1000 to 60.1400, the term "administrator" means the commissioner of the Minnesota Pollution Control Agency, except in the instances identified as follows:

A. in Code of Federal Regulations, title 40, section 60.1230(f) or 60.1720(e), alternative continuous monitoring methods must be approved by the Environmental Protection Agency administrator under the procedures of Code of Federal Regulations, title 40, section 60.13(i);

B. in Code of Federal Regulations, title 40, section 60.1300(e) or 60.1790(e), using a performance sampling reference method with minor changes in methodology, equivalent method, alternative method, shorter sampling time or smaller sampling volume must be approved by the Environmental Protection Agency administrator under the procedures of Code of Federal Regulations, title 40, section 60.8(b); and

C. in Code of Federal Regulations, title 40, section 60.1430 or 60.1905, an alternative submittal date for the semiannual out-of-compliance reports or annual reports must be approved by the Environmental Protection Agency administrator under the procedures of Code of Federal Regulations, title 40, section 60.19(c).

7011.4015 OPERATOR CERTIFICATION.

For purposes of administering Code of Federal Regulations, title 40, sections 60.1185(a) and 60.1675(a), "provisional operator certification from your state certification program" means the certification process defined in part 7011.1280. For purposes of administering Code of Federal Regulations, title 40, sections 60.1185(c)(1) and 60.1675(c)(1), "full certification from your state certification program" means the certification defined in part 7011.1281.

7011.4030 INCORPORATION OF STANDARDS OF PERFORMANCE FOR EXISTING SMALL MUNICIPAL WASTE COMBUSTORS.

Code of Federal Regulations, title 40, sections 60.1645 to 60.1905, 60.1935, and 60.1940, as amended, entitled "Emission Guidelines and Compliance Times for Small Municipal Waste Combustion Units Constructed on or Before August 30, 1999" is adopted and incorporated by reference.

7011.4035 INCORPORATION OF NEW SOURCE PERFORMANCE STANDARD BY REFERENCE FOR SMALL MUNICIPAL WASTE COMBUSTORS.

Code of Federal Regulations, title 40, part 60, subpart AAAA, as amended, entitled "Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001" is adopted and incorporated by reference.

STANDARDS OF PERFORMANCE FOR MEDICAL

WASTE COMBUSTORS

7011.5000 DEFINITIONS.

Subpart 1. **Scope.** As used in this chapter and chapter 7007, the terms in this part have the meanings given them.

Subp. 2. **Medical waste.** "Medical waste" means hospital waste as defined in Code of Federal Regulations, title 40, section 60.51c; medical/infectious waste as defined in Code of Federal Regulations, title 40, section 60.51c; and infectious waste as defined in Minnesota Statutes, section 116.76, subdivision 12.

Subp. 3. **Medical waste combustor.** "Medical waste combustor" means a waste combustor which burns greater than ten percent medical waste by weight.

Subp. 4. **Normal start-up.** "Normal start-up" means the period of time between the initial start-up of a new, modified, or retrofitted medical waste combustor unit, and 60 days after achieving the maximum production rate at which the emissions unit will operate or 180 days after initial start-up, whichever comes first.

Subp. 5. **12-hour rolling average.** "12-hour rolling average" means the average of all hourly emission concentrations when the emissions unit is operating and combusting waste, calculated each hour as the arithmetic average of the previous 12 operating hours, not including start-up, shutdown, or periods of malfunction.

7011.5005 STANDARDS APPLICABLE TO MEDICAL WASTE COMBUSTORS.

Subpart 1. **Existing medical waste incinerators.** The owner or operator of a medical waste combustor constructed on or before June 20, 1996, must comply with parts 7011.5000 to 7011.5025, 90 days after the effective date of those parts. If the owner or operator of a medical waste combustor elects to cease operating the medical waste combustor rather than comply, the owner shall cease operating the combustor 30 days after the effective date of those parts.

Subp. 2. **New medical waste combustors.** The owner or operator of a medical waste combustor constructed after June 20, 1996, or modified after March 16, 1998, must comply with parts 7011.5000 to 7011.5025 within 180 days of normal start-up.

Subp. 3. **Additional facility standards.** The owner or operator of a medical waste combustor shall comply with the following requirements:

A. part 7011.1280, if the owner or operator chooses to comply with the operator certification requirements of Code of Federal Regulations, title 40, section 60.53c, as amended, by obtaining certification through the Minnesota Pollution Control Agency;

B. general solid waste management requirements as follows:

(1) the security requirements of part 7035.2535, subpart 3;

(2) the emergency preparedness and prevention plans and emergency procedures prepared in accordance with parts 7035.2595 and 7035.2605;

(3) the solid waste transfer facility

requirements in part 7035.2865, subparts 4 and 5; and

(4) the infectious waste management requirements in parts 7035.9100 to 7035.9150;

C. the mercury waste separation plan requirements in part 7011.1255; and

D. the conditions of parts 7011.5000 to 7011.5025.

Subp. 4. **Emission limits for mercury, lead, and cadmium.** The owner or operator of a medical waste combustor must comply with the mercury, lead, and cadmium emission limits described in this subpart. Emissions shall be calculated under standard conditions corrected to seven percent oxygen on a dry volume basis.

Mercury	0.055 mg/dscm or 85 percent removal, whichever is less stringent
Lead	0.050 mg/dscm or 98 percent removal, whichever is less stringent
Cadmium	0.040 mg/dscm or 90 percent removal, whichever is less stringent

7011.5010 CONTINUOUS MONITORING REQUIREMENTS FOR MEDICAL WASTE COMBUSTORS.

Subpart 1. **Scope.** The owner or operator of a medical waste combustor shall operate monitoring systems as required in this part. The monitors must be installed, calibrated, maintained, and operated in accordance with the requirements of parts 7017.1002 to 7017.1220. All valid data must be used to calculate emission concentrations or emission reductions, even if the conditions of part 7017.1090 are not met.

Subp. 2. **Required flue gas monitors.** The owner or operator of a medical waste combustor shall install and operate the monitors described in items A and B.

A. A carbon monoxide emissions monitor must be installed at the waste combustor outlet. The monitor shall continuously read the carbon monoxide concentration of the flue gas and emissions must be calculated as a 12-hour rolling average. The 12-hour rolling average must be calculated from one-hour averages.

B. An oxygen monitor must be installed. The monitor must be located where carbon monoxide is monitored, to report corrected concentrations of carbon monoxide. The monitor shall continuously read the oxygen concentration of the flue gas and one-hour averages must be collected and reported.

Subp. 3. **Recording data from continuous monitoring.** In addition to the information required by part 7017.1130, the owner or operator of a medical waste combustor unit shall maintain a record of the calendar date, and all 12-hour rolling average carbon monoxide emission concentrations, corrected to seven percent oxygen concentration.

Subp. 4. **Exceedances of monitored operating limits.** In Code of Federal Regulations, title 40, section 60.56c(d), (e), (f), and (g), operating the waste combustor unit above or below the allowable maximum or minimum ranges for various operating parameters is a violation of the emission limit, unless

otherwise demonstrated by performance testing at the condition.

The owner or operator of the medical waste combustor shall conduct the performance test within 30 days of operating under the conditions that violate the emission limit. The medical waste combustor unit must cease operation on the 61st day after the date that the unit was operated under any of the conditions that cause the requirement for the performance test if compliance with the emissions limit is not demonstrated.

Subp. 5. **Exceedances of continuously monitored carbon monoxide limits.** If accurate and valid data results collected from continuous monitors for carbon monoxide exceed any applicable emission limits after normal start-up, the owner or operator of a medical waste combustor shall:

A. report the exceedance to the commissioner as soon as reasonably possible, giving consideration to matters of plant or worker safety and access to communication;

B. commence appropriate repairs or modifications to return the waste combustor to compliance within 72 hours of the exceedance;

C. if the waste combustor cannot be returned to compliance within 72 hours of the occurrence of the exceedance, shut down the waste combustor; and

D. when repairs or modifications have been completed, demonstrate to the commissioner that the medical waste combustor is in compliance with the applicable limit. The medical waste combustor may be started up after the owner or operator has notified the commissioner in writing of the date the owner or operator plans to start up the medical waste combustor. Notification must be given at least 24 hours in advance of the date of start-up of the medical waste combustor.

7011.5015 PERFORMANCE TESTING.

Subpart 1. **Performance test procedures.** An owner or operator of a medical waste combustor must use the performance test methods described in the applicable federal regulation. In addition:

A. particulate matter must be measured using the method in part 7017.2060, subpart 3; and

B. when conducting performance tests for mercury, the maximum sample run time must be two hours.

Subp. 2. **Performance testing frequency.** The owner or operator of medical waste combustors shall conduct the performance tests according to the schedule in Code of Federal Regulations, title 40, section 60.56c, and additionally as described in items A to C.

A. In addition to the annual testing in Code of Federal Regulations, title 40, sections 60.56c(c)(2) and 62.14451, once annually for lead, cadmium, and PCDD/PCDF but no later than 12 months following the previous performance test.

B. If the annual performance test required in item A for a three-year period shows compliance with standards in part 7011.5005 or the conditions of the facility's permit, the owner or operator may continue to conduct annual testing, or may choose to conduct performance tests every three years. At a minimum, a performance test for particular matter, hydrogen

chloride, lead, cadmium, and PCDD/PCDF must be conducted every three years, but not later than 36 months following the previous performance test. If a performance test indicates noncompliance with applicable standards, after complying with subpart 3, the owner or operator shall resume annual testing for three years for the pollutant for which noncompliance was demonstrated. If three annual performance tests for the three-year period show compliance with applicable standards, the owner or operator may again conduct performance testing every three years.

C. The waste combustor owner or operator shall conduct a mercury emissions performance test once every three months for three consecutive years after the test in item A. After three years, the owner or operator may change the frequency of mercury emissions testing as allowed in subitems (1) to (3), provided the owner or operator has submitted a written notice to the commission 60 days prior to moving to any alternative schedule.

(1) The owner or operator may choose to conduct performance testing once every year, but no later than 12 months following the previous performance test, provided that previous mercury emissions tests demonstrate that mercury emissions have been below the emissions limit but greater than 50 percent of the limit.

(2) The owner or operator may choose to conduct performance testing no later than 36 months following the previous test for mercury, provided that previous mercury emissions tests demonstrate that mercury emissions have been below 50 percent of the emissions limit.

(3) If testing in subitem (2) shows that mercury emissions are below the emissions limit but greater than 50 percent of the limit, the owner or operator must conduct annual testing until the emissions are again below 50 percent of the limit.

Subp. 3. **Exceedance of emission limits demonstrated through performance testing.** If accurate and valid data results from a performance test demonstrate an exceedance after normal start-up of a standard of performance or as set forth in the medical waste combustor's air emission facility permit, the owner or operator shall undertake the actions in items A to D.

A. The owner or operator shall report the exceedance to the commissioner as soon as reasonably possible, giving consideration to matters of plant or worker safety or access to communications and the applicable reporting provisions of part 7007.0600, subpart 6.

B. Within 60 days of the report of the initial exceedance, the owner or operator shall conduct a performance test and submit the result to the commissioner to demonstrate that the medical waste combustor is in compliance with applicable limits.

C. If the owner or operator does not demonstrate compliance within 60 days of the initial report of the exceedance, the owner or operator shall shut down the waste combustor on the 61st day after the initial report of the exceedance.

D. The medical waste combustor may be restarted solely to conduct performance testing after the owner or operator has notified the commissioner in writing of the date on which the owner or operator plans to restart operation of the waste combustor. Notification must be postmarked at least seven days in advance of the date the medical waste combustor will resume operation. The notice must state the date performance testing will be conducted.

7011.5020 RECORDS AND REPORTING.

Subpart 1. **Quarterly excess emissions reporting for carbon monoxide.** The owner or operator of a medical waste combustor using continuous monitors for carbon monoxide shall prepare quarterly excess emission reports as described in part 7017.1110.

Subp. 2. **Semiannual report.** When submitting the semiannual report required by Code of Federal Regulations, title 40, section 60.58c, the owner or operator shall include the following information related to the operation of continuous emissions monitors:

A. all 12-hour rolling arithmetic average carbon monoxide emission concentrations; and

B. reasons for not obtaining the minimum number of hours of carbon monoxide emission data, reasons for not obtaining the data, and a description of corrective actions taken.

7011.5025 INCORPORATION BY REFERENCE OF STANDARDS.

Subpart 1. **Emission control requirements for existing medical waste combustors.** Code of Federal Regulations, title 40, part 62, subpart HHH, entitled "Federal Plan Requirements for Hospital/Medical/Infectious Waste Incinerators Constructed on or before June 20, 1996," as amended, is adopted and incorporated.

Subp. 2. **New source performance standards.** Code of Federal Regulations, title 40, part 60, subpart Ec, as amended, entitled "Standards of Performance for Hospital/Medical/Infectious Waste Incinerator for Which Construction is Commended After June 20, 1996" is adopted and incorporated by reference.

Subp. 3. **Operator certification standards.** Standards for the Qualification and Certification of Medical Waste Incinerator Operators, American Society of Mechanical Engineers QMO-1-1993, July 1993, is adopted and incorporated by reference. The standard is available from the American Society of Mechanical Engineers (ASME), 345 East 47th Street, New York, New York 10017 or from the State Law Library, Judicial Center, 25 Constitution Avenue, St. Paul, Minnesota 55155. This document is not subject to frequent change.

STANDARDS OF PERFORMANCE FOR AIR CURTAIN INCINERATORS

7011.5500 AIR CURTAIN INCINERATOR DEFINED.

For purposes of parts 7011.5505 to 7011.5515, "air curtain incinerator" means an incinerator constructed above or below ground, with or without refractory walls and floor, whereby a curtain of air is forcefully projected across the open chamber or pit in which combustion occurs.

7011.5505 APPLICABILITY OF STANDARDS.

Subpart 1. **Air curtain incinerators combusting yard waste.** Air curtain incinerators combusting solely yard waste are subject to the standards of performance of part 7011.5510. For purposes of applying the standards of performance of this part, "yard waste" means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. Yard waste comes from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include:

A. construction, renovation, and demolition wastes that are exempt from the definition of "municipal solid waste" in Code of Federal Regulations, title 40, section 60.1465; and

B. clean wood that is exempt from the definitions of "municipal solid waste" in Code of Federal Regulations, title 40, section 60.1465.

Subp. 2. **Air curtain incinerators combusting wood waste, clean lumber, or other wood mixtures.** Regardless of the date the air curtain incinerator was first constructed or operated, air curtain incinerators combusting wood waste, clean lumber, or any combination of wood waste, clean lumber, and yard waste are subject to the standards of performance of part 7011.5515. For purposes of applying the standards of performance of part 7011.5515, the definitions in items A to C apply.

A. "Wood waste" means untreated wood and untreated wood products, including whole or chipped tree stumps, trees, whole or chipped tree limbs, bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include:

(1) grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands;

(2) construction, renovation, or demolition wastes; or

(3) clean lumber.

B. "Clean lumber" means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote.

C. "Yard waste" has the definition given in subpart 1.

Subp. 3. **Air curtain incinerators combusting other wastes.** Air curtain incinerators are prohibited from combusting solid wastes other than animal carcasses or those identified in subparts 1 and 2.

7011.5510 INCORPORATION OF STANDARDS FOR AIR CURTAIN INCINERATORS BURNING 100 PERCENT YARD WASTE.

Code of Federal Regulations, title 40, sections 60.1435 to 60.1455, as amended, entitled "Air Curtain Incinerators That Burn 100 Percent Yard Waste" are adopted and incorporated by reference.

7011.5515 INCORPORATION OF STANDARDS FOR AIR CURTAIN INCINERATORS BURNING WOOD WASTES.

Code of Federal Regulations, title 40, sections 60.2245 to 60.2260, as amended, entitled "Air Curtain Incinerators" are adopted and incorporated by reference.

STANDARDS OF PERFORMANCE FOR COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATOR UNITS

7011.5600 DEFINITIONS.

Subpart 1. **Scope.** The terms used in parts 7011.5600 to 7011.5625 have the meanings given them in this part.

Subp. 2. **Commercial and industrial solid waste incinerator.** "Commercial and industrial solid waste incinerator" means:

A. an enclosed device combusting solid waste using controlled flame combustion without energy recovery that is a distinct operating unit of any commercial or industrial facility, including field-erected, modular, and custom built incineration units operating with starved or excess air; or

B. an air curtain incinerator combusting solid waste without energy recovery that is a distinct operating unit of any commercial or industrial facility.

Subp. 3. **Four-hour block average.** "Four-hour block average" means the average of all hourly emission rates when the emissions unit is operating and combusting solid waste measured over six discrete four-hour periods beginning at midnight.

7011.5605 APPLICABILITY.

Regardless of the date the commercial and industrial solid waste incinerator was constructed or operated, the commercial and industrial solid waste incinerator must be in compliance with the conditions of parts 7011.5600 to 7011.5630.

7011.5610 STANDARDS APPLICABLE TO COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATORS.

The owner or operator of a commercial and industrial solid waste incinerator shall comply with the emission limits, notification, monitoring, testing, recordkeeping, and reporting requirements of the new source performance standards incorporated in part 7011.5625. In addition, the owner or operator shall:

A. use a continuous emissions monitor to determine compliance with the carbon monoxide limit, based on a four-hour block average;

B. certify operators according to the requirements of part 7011.1280;

C. comply with general solid waste management requirements as follows:

(1) the security requirements of part 7035.2535, subpart 3;

(2) the emergency preparedness and prevention plans and emergency procedures prepared in accordance with parts 7035.2605 and 7035.2595; and

(3) the solid waste transfer facility requirements in part 7035.2865, subparts 4 and 5; and

D. comply with the mercury waste separation plan requirements of part 7011.1255.

7011.5615 CONTINUOUS MONITORING REQUIREMENTS FOR COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATORS.

Subpart 1. **Scope.** The owner or operator of a commercial and industrial solid waste incinerator shall operate monitoring systems as required in this part. The monitors shall be installed, calibrated, maintained, and operated in accordance with parts 7017.1002 to 7017.1220. All valid data must be used to calculate emission concentrations or emission reductions, even if the conditions of part 7017.1090 are not met.

Subp. 2. **Required flue gas monitors.** The owner or operator of a commercial and industrial solid waste incinerator shall install and operate the monitors described in items A to C.

A. A carbon monoxide emissions monitor must be installed at the incinerator outlet. The monitor must continuously read the carbon monoxide concentration of the flue gas and emissions must be calculated as a four-hour block average. The four-hour block average must be calculated from one-hour averages.

B. An oxygen monitor must be installed. The monitor shall be located where carbon monoxide is monitored, to report corrected concentrations of carbon monoxide. The monitor must continuously read the oxygen concentration of the flue gas and one-hour averages shall be collected and reported.

C. A flue gas opacity monitor must be installed at a location after which the flue gas has exited the air pollution control equipment. The monitor must continuously read the opacity of the flue gas.

Subp. 3. **Recording data from continuous monitoring.** In addition to the information required by part 7017.1130, the owner or operator of a commercial and industrial solid waste incinerator shall maintain a record of the calendar date, and all four-hour block average carbon monoxide emission concentrations, corrected to seven percent oxygen concentration.

Subp. 4. **Exceedances of continuously monitored carbon monoxide limits.** If accurate and valid data results collected from continuous monitors for carbon monoxide after normal start-up exceed emission limits established in standards of performance or in the commercial and industrial solid waste incinerator's permit, the owner or operator shall:

A. report the exceedance to the commissioner as soon as reasonably possible, giving consideration to matters of plant or worker safety access to communication;

B. commence appropriate repairs or modifications to return the incinerator to compliance within 72 hours of the exceedance;

C. if the incinerator cannot be returned to compliance within 72 hours of the occurrence of the exceedance, shut down the incinerator; and

D. when repairs or modifications have been completed, demonstrate to the commissioner that the incinerator is in compliance with the applicable limit. The incinerator may be started up after the owner or operator has notified the commissioner in writing of the date the owner or operator plans to start up the incinerator. Notification must be given at least 24 hours in advance of the date of start-up.

7011.5620 PERFORMANCE TESTING.

Subpart 1. **Performance test procedures.** An owner or operator of a commercial and industrial solid waste incinerator shall use the performance test methods described in federal regulation, except that:

A. particulate matter must be measured using the method of part 7017.2060, subpart 3; and

B. when conducting performance tests for mercury, the maximum sample run time shall be two hours.

Subp. 2. **Performance testing frequency.** The owner or operator of a commercial and industrial solid waste incinerator shall conduct the performance tests according to the schedule in Code of Federal Regulations, title 40, sections 60.2140 and 60.2150. In addition, the owner or operator shall conduct the tests as described in items A to C.

A. The tests must be conducted once annually after the initial performance test required in Code of Federal Regulations, title 40, section 60.2140, for lead, cadmium, and total PCDD/PCDF but no later than 12 months following the previous performance test.

B. If the annual performance test required in item A for a three-year period shows compliance with applicable emission limits, the owner or operator may continue to conduct annual testing, or may choose to conduct performance tests every three years. At a minimum, a performance test for lead, cadmium, and total PCDD/PCDF must be conducted every three years, but no later than 36 months following the previous performance test. If a performance test indicates noncompliance with applicable standards, after complying with subpart 3, the owner or operator shall resume annual testing for three years for the pollutant for which noncompliance was demonstrated. If three annual performance tests for the three-year period show compliance with applicable standards, the owner or operator may again conduct performance testing every three years.

C. The tests must be conducted once every three months after the initial performance test in Code of Federal Regulations, title 40, section 60.2140(a), for mercury emissions. After three years, the waste combustor owner or operator may change the frequency of mercury emissions testing as allowed in subitems (1) to (3), provided the owner or operator has submitted a written notice to the commission 60 days prior to moving to any alternative schedule.

(1) The owner or operator may choose to conduct performance testing once every year, but no later than 12 months following the previous performance test, provided that previous mercury emissions tests demonstrate that mercury emissions have been below the emissions limit but greater than 50 percent of the limit.

(2) The owner or operator may choose to conduct performance testing no later than 36 months following the previous test for mercury, provided that previous mercury emissions tests demonstrate that mercury emissions have been below 50 percent of the emissions limit.

(3) If testing in subitem (2) shows that mercury emissions are below the emissions limit but greater than 50

percent of the limit, the owner or operator must conduct annual testing until the emissions are again below 50 percent of the limit.

Subp. 3. **Exceedance of emission limits demonstrated through performance testing.** If accurate and valid data results from a performance test after normal start-up demonstrate an exceedance of an applicable limit, the owner or operator of a commercial and industrial solid waste incinerator shall undertake the actions in items A to D.

A. The owner or operator shall report the exceedance to the commissioner as soon as reasonably possible, giving consideration to matters of plant or worker safety or access to communications and the applicable reporting provisions of part 7007.0600, subpart 6.

B. Within 60 days of the report of the initial exceedance, the owner or operator shall conduct a performance test and submit the result to the commissioner to demonstrate that the incinerator is in compliance with the applicable limit.

C. If the owner or operator does not demonstrate compliance within 60 days of the initial report of the exceedance, the owner or operator shall shut down the incinerator on the 61st day after the initial report of the exceedance.

D. The incinerator may be restarted solely to conduct performance testing after the owner or operator has notified the commissioner in writing of the date on which the owner or operator plans to restart operation of the waste combustor. Notification must be postmarked at least seven days in advance of the date the incinerator will resume operation. The notice must state the date the performance testing will be conducted.

7011.5625 INCORPORATION OF NEW SOURCE PERFORMANCE STANDARD BY REFERENCE FOR COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATORS.

Code of Federal Regulations, title 40, sections 60.2000 to 60.2265, as amended, entitled "Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced After November 30, 1999 or for Which Modification or Reconstruction is Commenced on or after June 1, 2001." is adopted and incorporated by reference.

REPEALER. Minnesota Rules, parts 7011.1201, subparts 12, 27, and 48; 7011.1210; 7011.1225, subpart 4; 7011.1235, subpart 3; and 7011.1265, subpart 6, are repealed.