

=RD3276

- 1.1 Pollution Control Agency
- 1.2 Proposed Permanent Rules Relating to Waste Combustors
- 1.3 PERMITTING
- 1.4 7005.0100 DEFINITIONS.
- 1.5 **For text of subs 1 to 11c, see M.R.**
- 1.6 Subp. 23a. Malfunction. "Malfunction" means any sudden
- 1.7 and unavoidable failure of air pollution control equipment or
- 1.8 process equipment or of a process to operate in a normal or
- 1.9 usual manner. Failures that are caused entirely or in part by
- 1.10 poor maintenance, careless operation, or any other preventable
- 1.11 upset condition or preventable equipment breakdown are not
- 1.12 considered malfunctions.
- 1.13 **For text of subs 24 to 45, see M.R.**
- 1.14 7007.0200 SOURCES REQUIRED OR ALLOWED TO OBTAIN A PART 70 PERMIT.
- 1.15 **For text of subs 1 to 3, see M.R.**
- 1.16 Subp. 4. **Solid waste incinerators, waste combustors.** A
- 1.17 solid waste incineration unit, or waste combustor ~~as defined in~~
- 1.18 ~~part 7011.1201, subpart 46,~~ must obtain a permit under this part
- 1.19 if it is:
- 1.20 A. a major source under subpart 2;
- 1.21 B. required to obtain a permit under section 129(e)
- 1.22 of the act (Solid Waste Combustion, Permits); ~~or~~
- 1.23 C. ~~a new or existing~~ Class A or Class I waste
- 1.24 ~~combustor for which a performance standard has been promulgated~~
- 1.25 ~~under section 129(a)(1) of the act. as defined in part~~
- 1.26 7011.1201;
- 2.1 D. a small municipal waste combustor as defined in
- 2.2 part 7011.4000;
- 2.3 E. a medical waste combustor as defined in part
- 2.4 7011.5000;
- 2.5 F. an air curtain incinerator as defined in part
- 2.6 7011.5500; or
- 2.7 G. a commercial or industrial solid waste incinerator
- 2.8 as defined in part 7011.5600.
- 2.9 **For text of subs 5 and 6, see M.R.**
- 2.10 7007.0250 SOURCES REQUIRED TO OBTAIN A STATE PERMIT.
- 2.11 **For text of subs 1 to 5, see M.R.**
- 2.12 Subp. 6. **Waste combustors.** A waste combustor, as defined
- 2.13 in part 7011.1201, must obtain a permit under this part unless
- 2.14 it is:
- 2.15 A. ~~a Class IV waste combustor located at a hospital;~~
- 2.16 ~~or~~
- 2.17 ~~B. a waste combustor subject to the exemptions in~~
- 2.18 ~~part 7011.1215, subpart 3; or~~
- 2.19 B. required to obtain a part 70 permit under part
- 2.20 7007.0200, subpart 4.
- 2.21 ~~Notwithstanding the exemptions in items A and B, a Class IV~~
- 2.22 ~~waste combustor that does not comply with the stack height~~
- 2.23 ~~requirements of part 7011.1235, subpart 1, but uses alternative~~
- 2.24 ~~techniques to achieve equivalent ambient pollution~~
- 2.25 ~~concentrations, must obtain a permit under this part. The~~
- 2.26 ~~permit obtained shall not be a registration permit under parts~~
- 2.27 ~~7007.1110 to 7007.1130.~~

3.1 **For text of subp 7, see M.R.**

3.2 7007.0400 PERMIT REISSUANCE APPLICATIONS AFTER TRANSITION; NEW  
3.3 SOURCE AND PERMIT AMENDMENT APPLICATIONS; APPLICATIONS FOR  
3.4 SOURCES NEWLY SUBJECT TO A PART 70 OR STATE PERMIT REQUIREMENT.

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

3.18 An application for a part 70 permit for a commercial and  
3.19 industrial solid waste combustor, medical waste combustor, or  
3.20 air curtain incinerator that, because of the adoption of this  
3.21 part, becomes subject to the requirement to obtain a part 70  
3.22 permit for the first time after the application deadline in part  
3.23 7007.0350, subpart 1, is considered timely if it meets the  
3.24 requirements of subpart 5.

3.25 **For text of subs 2 to 4, see M.R.**

3.26 Subp. 5. Application for permits for stationary sources  
3.27 subject to federal standards promulgated under section 129 of  
4.1 the act. Sources subject to the standards of performance as  
4.2 described in the following table are required to obtain a part  
4.3 70 permit. The owner or operator of these emission facilities  
4.4 operating on the effective date of this part shall submit  
4.5 applications for a part 70 total facility permit that  
4.6 incorporates the standards of performance as follows:

4.7 <u>Stationary source</u>	4.7 <u>Subject to the</u>	4.7 <u>Shall submit</u>
4.8	4.8 <u>following standards</u>	4.8 <u>application</u>

4.10 <u>small municipal</u>	4.10 <u>parts 7011.4000 to</u>	4.10 <u>180 days from the</u>
4.11 <u>waste combustors</u>	4.11 <u>7011.4035</u>	4.11 <u>effective date of</u>
4.12		4.12 <u>this part</u>
4.13 <u>air curtain</u>	4.13 <u>parts 7011.5500 to</u>	4.13 <u>545 days from the</u>
4.14 <u>incinerators</u>	4.14 <u>7011.5515</u>	4.14 <u>effective date of</u>
4.15		4.15 <u>this part</u>

4.16 7007.0501 ADDITIONAL CONTENTS REQUIRED IN A PERMIT APPLICATION  
4.17 FOR A WASTE COMBUSTOR.

4.18 **For text of subs 1 to 8, see M.R.**

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

4.25 STANDARDS OF PERFORMANCE

4.26 7011.1201 DEFINITIONS.

4.27 **For text of subs 1 to 11, see M.R.**

4.28 Subp. 12. **See repealer.**

4.29 **For text of subp 13, see M.R.**

4.30 Subp. 14. **Class II waste combustor.** "Class II waste

4.31 combustor" means that the design capacity for a waste combustor

5.1 unit is  $15 \times 10^6$  Btu/hr or more and less than  $93.75 \times 10^6$

5.2 Btu/hr, and ~~that construction of the unit is commenced after~~

5.3 ~~September 20, 1994, or modification or reconstruction is~~

5.4 ~~commenced after June 19, 1996~~ the waste combustor is issued a

5.5 permit for construction after December 20, 1989.

5.6 Subp. 15. **Class III waste combustor.** "Class III waste

5.7 combustor" means that the waste combustor unit is not a

5.8 commercial and industrial solid waste incinerator as defined in

5.9 part 7011.5600, its design capacity for a waste combustor unit

5.10 is  $3.0 \times 10^6$  Btu/hr or more and less than  $15 \times 10^6$  Btu/hr, the

5.11 waste combustor burns ten percent or less by weight of medical

5.12 waste, and the waste combustor is issued a permit for

5.13 construction after December 20, 1989.

5.14 Subp. 16. **Class IV waste combustor.** "Class IV waste

5.15 combustor" means that the design capacity for a waste combustor

5.16 unit is less than  $3.0 \times 10^6$  Btu/hr and does not burn infectious

5.17 wastes or wastes generated by hospitals.

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

5.19 Subp. 27. **See repealer.**

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

5.21 Subp. 45b. Unadulterated wood. "Unadulterated wood" means

5.22 wood or wood products that have not been painted,

5.23 pigment-stained, or pressure-treated with compounds such as

5.24 chromate copper arsenate, pentachlorophenol, and creosote.

5.25 Plywood, particle board, oriented strand board, and other types

5.26 of wood products bound by glues and resins are included in the

5.27 definition of unadulterated wood.

6.1 Subp. 46. **Waste combustor.** "Waste combustor" means any

6.2 emissions unit ~~or emission facility~~ where mixed municipal solid

6.3 waste, solid waste, or refuse-derived fuel is combusted, and

6.4 includes incinerators, energy recovery facilities, or other

6.5 combustion devices. A metals recovery incinerator is a waste

6.6 combustor. A combustion device combusting

6.7 primarily unadulterated wood, or at least 70 percent fossil fuel

6.8 and wood in combination with up to 30 percent papermill

6.9 wastewater treatment plant sludge, is not a waste combustor. A

6.10 soil treatment facility, paint burn-off oven, wood heater, or

6.11 residential fireplace is not a waste combustor.

6.12 Subp. 48. **See repealer.**

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

6.14 7011.1215 APPLICABILITY OF STANDARDS OF PERFORMANCE FOR WASTE

6.15 COMBUSTORS.

6.16 Subpart 1. **Waste combustors.** A person who constructs,

6.17 modifies, reconstructs, or operates a waste combustor shall

6.18 comply with parts 7011.1201 to 7011.1290, except as provided in

6.19 subparts 2, 2a, 2b, 2c, and 3.

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

6.21 Subp. 2c. Small medical waste combustors. If the New

6.22 Source Performance Standards for small medical waste combustors,

6.23 Code of Federal Regulations, title 40, part 60, subpart AAAA,

6.24 applies to a Class II waste combustor, the unit must comply with  
6.25 parts 7011.4000 to 7011.4035. If a New Source Performance  
6.26 Standard for a medical waste incinerator applies to a Class II  
6.27 waste combustor, the unit must comply with parts 7011.5000 to  
7.1 7011.5025.

7.2 Subp. 3. **Exemptions from standards of performance for**  
7.3 **crematoria.** Crematoria, pathological waste combustors, and  
7.4 waste combustors used solely for the disposal of animal  
7.5 carcasses are exempt from the requirements of parts ~~7011.1210~~  
7.6 ~~7011.1215~~ to 7011.1290, and ~~shall meet the conditions of this~~  
7.7 ~~subpart 7011.5000 to 7011.5035.~~

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

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

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

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

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

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

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

8.2 F. urban wood wastes, including yard trimmings, site  
8.3 clearing wastes, pallets, and wood packing, but not including  
8.4 demolition debris as defined in part 7035.0300, subpart 30, or  
8.5 construction debris as defined in Minnesota Statutes, section  
8.6 115A.03, subdivision 7; and

8.7 G. poultry litter, excluding peat-based bedding.

8.8 Subp. 4. **Standards.** The standards of parts 7011.1227,  
8.9 7011.1228, 7011.1229, 7011.1230, 7011.1231, 7011.1233,  
8.10 7011.1240, subpart 2, and 7011.1272, subpart 2, apply at all  
8.11 times when waste is being continuously burned, except during  
8.12 periods of start-up, shutdown, or malfunction, provided that the  
8.13 duration of start-up, shutdown, or malfunction does not exceed  
8.14 three hours. Fugitive emissions standards applicable to ash  
8.15 conveying systems do not apply during maintenance and repair of  
8.16 ash conveying systems. ~~"Malfunction" means any sudden and~~  
8.17 ~~unavoidable failure of air pollution control equipment or~~  
8.18 ~~process equipment or of a process to operate in a normal or~~  
8.19 ~~usual manner. Failures that are caused entirely or in part by~~  
8.20 ~~poor maintenance, careless operation, or any other preventable~~  
8.21 ~~upset condition or preventable equipment breakdown are not~~  
8.22 ~~considered malfunctions.~~

8.23 The start-up period commences when the waste combustor

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

8.27 Continuous burning is the continuous, semicontinuous, or  
9.1 batch feeding of solid waste for purposes of waste disposal,  
9.2 energy production, or providing heat to the combustion system in  
9.3 preparation for waste disposal or energy production. The use of  
9.4 solid waste solely to provide thermal protection of the grate or  
9.5 hearth during the start-up period when municipal solid waste is  
9.6 not being fed to the grate is not considered to be continuous  
9.7 burning.

9.8 **For text of subp 5, see M.R.**

9.9 Subp. 5a. **Transition for Class C waste combustors.** A  
9.10 Class C waste combustor shall demonstrate compliance with parts  
9.11 7011.1201 to 7011.1290 by July 17, 1998. Once a Class C waste  
9.12 combustor unit demonstrates compliance with applicable  
9.13 requirements of parts 7011.4000 to 7011.4035, the emission  
9.14 limits in part 7011.1227 applicable to Class C waste combustors  
9.15 no longer apply.

9.16 **For text of subp 6, see M.R.**

9.17 7011.1220 PROHIBITIONS.

9.18 Subpart 1. **Prohibited waste combustors.** No person shall  
9.19 operate a ~~Class IV~~ waste combustor with a design capacity of  
9.20 3,000,000 Btu/hr or less, unless that waste combustor is:

9.21 A. a waste combustor located at a hospital;

9.22 B. a Class IV waste combustor located at a

9.23 crematorium, pathological waste combustor, or waste combustor  
9.24 used solely for the disposal of animal carcasses; or

9.25 C. a metals recovery incinerator.

9.26 **For text of subp 2, see M.R.**

10.1 7011.1225 STANDARDS OF PERFORMANCE FOR WASTE COMBUSTORS.

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

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

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

10.7 Subp. 2. **Class I or II waste combustors.** No owner or  
10.8 operator of a Class I or II waste combustor shall cause to be  
10.9 emitted into the atmosphere from each waste combustor unit gases  
10.10 in excess of the standards of performance shown in part  
10.11 7011.1229 or 7011.1230. The standards of performance for  
10.12 medical waste combustors in parts 7011.5000 to 7011.5025 do not  
10.13 apply to Class I or II waste combustors.

10.14 Subp. 3. **Class III waste combustors.** No owner or operator  
10.15 of a Class III waste combustor shall cause to be emitted into  
10.16 the atmosphere from each waste combustor unit gases ~~that contain~~  
10.17 ~~particulate matter, PCDD/PCDF, mercury, carbon monoxide, or~~  
10.18 ~~opacity~~ in excess of the standards of performance in part  
10.19 7011.1231. Emissions shall be calculated under standard  
10.20 conditions, corrected to seven percent oxygen on a dry volume  
10.21 basis. An owner or operator may determine compliance with the  
10.22 emission limitations using carbon dioxide measurements corrected  
10.23 to an equivalent of seven percent oxygen. The relationship  
10.24 between carbon dioxide and oxygen shall be established at each

10.25 compliance test.

10.26 Subp. 4. **See repealer.**

10.27 Subp. 5. **Class IV waste combustors.** No owner or operator

11.1 of a Class IV waste combustor shall cause to be emitted into the

11.2 atmosphere from each waste combustor unit gases that contain

11.3 particulate matter, carbon monoxide, or opacity in excess of

11.4 those concentrations in part 7011.1233. Emissions, except

11.5 opacity, shall be calculated under standard conditions,

11.6 corrected to seven percent oxygen on a dry volume basis. An

11.7 owner or operator may determine compliance with the emission

11.8 limitations using carbon dioxide measurements corrected to an

11.9 equivalent of seven percent oxygen. The relationship between

11.10 carbon dioxide and oxygen shall be established at each

11.11 compliance test.

11.12 7011.1231 TABLE 3.

11.13 The table in this part governs emission limitations for

11.14 Class III ~~and D~~ waste combustors.

11.16	Size	Class III	<del>Class D</del>
11.18	Particulate Matter		
11.19	Total	0.020 gr/dscf	<del>0.035 gr/dscf</del>
11.21	PCDD/PCDF		
11.22	Total	60 ng/dscm	<del>200 ng/dscm</del>
11.24	Carbon monoxide		
11.25	Modular	50 ppm	<del>50 ppm</del>
11.26	<del>RDF</del>	<del>275 ppm</del>	<del>275 ppm</del>
11.27	<u>All other</u>	<u>157 ppm</u>	
11.28	<u>combustion</u>		
11.29	<u>technologies</u>		
11.31	Opacity	10%	<del>20%</del>
11.33	Mercury		
11.34	Short-term	<del>500</del> 470 \Am\ag/dscm	
11.35		<del>or 85% removal</del>	
11.36	Long-term	300 \Am\ag/dscm	
11.37		or 85% removal	
11.38	<u>Lead</u>	<u>40 \Am\ag/dscm</u>	
12.1	<u>Cadmium</u>	<u>4 \Am\ag/dscm</u>	
12.3	<u>Hydrogen Chloride</u>	<u>62 ppm</u>	
12.5	<u>Sulfur Dioxide</u>	<u>20 ppm</u>	
12.6	7011.1233 TABLE 4.		
12.7	The table in this part governs emissions from Class IV		
12.8	waste combustors.		
12.9	<del>Use</del>	<del>Hospital</del>	<del>Metal Recovery</del>

12.12 Particulate Matter

12.13 Total ~~0.08 gr/dscf~~ 0.035 gr/dscf

12.15 Opacity ~~20%~~ 20%

12.17 Carbon Monoxide ~~50 ppm~~ 50 ppm

12.18 7011.1255 PLAN TO SEPARATE SOLID WASTES WHICH CONTAIN MERCURY.

12.19 Subpart 1. **Preparation of a mercury waste separation**

12.20 **plan.** If a mercury waste separation plan is required by part

12.21 7007.0501 ~~or 7011.1210~~, the waste combustor owner or operator

12.22 must prepare a plan to identify, separate, and collect before

12.23 combustion solid wastes which contain mercury.

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

12.25 7011.1260 CONTINUOUS MONITORING.

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

12.27 Subp. 3. **Continuous monitors.** The owner or operator of a

12.28 waste combustor shall install, calibrate, maintain, and operate

12.29 a continuous monitoring system when burning solid waste.

12.30 Monitoring systems that continuously read and record the

12.31 following outputs shall be installed:

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

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

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

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

13.3 Subp. 5. **Installation and operation of continuous monitors.**

13.4 The owner or operator of a waste combustor with continuous

13.5 monitors shall comply with the requirements of parts 7017.1002

13.6 to 7017.1220, except as provided in items A to I.

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

13.8 D. When continuous emissions data for sulfur dioxide

13.9 removal efficiency, sulfur dioxide or nitrogen oxide emission

13.10 rates, or carbon monoxide are not obtained because of monitor

13.11 breakdowns, repairs, calibration checks, and zero and span

13.12 adjustments, emission data calculations to determine compliance

13.13 shall be made using the following methods:

13.14 (1) for sulfur dioxide removal efficiency or

13.15 sulfur dioxide or nitrogen oxide emission concentrations, Code

13.16 of Federal Regulations, title 40, part 60, Appendix A, Method

13.17 19, as amended, to provide valid emission data in order to meet

13.18 the requirements of item B. ~~Other monitoring systems or other~~

13.19 ~~data collection methods may be used as approved by the~~

13.20 ~~commissioner; and~~

13.21 (2) for carbon monoxide, Code of Federal

13.22 Regulations, title 40, part 60, Appendix A, Method 10, as

13.23 amended, to provide valid emission data in order to meet the

13.24 requirements of item B. ~~Other monitoring systems or other data~~

13.25 ~~collection methods may be used as approved by the commissioner.~~

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

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

14.1 7011.1265 REQUIRED PERFORMANCE TESTS, METHODS, AND PROCEDURES.

14.2 **For text of subpart 1, see M.R.**

14.3 Subp. 2. **Performance test methods for criteria**

14.4 **pollutants.** An owner or operator of a waste combustor required

14.5 to conduct performance tests for particulate matter, ~~sulfur~~

14.6 ~~dioxide, or nitrogen oxides~~ opacity, carbon monoxide, and

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

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

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

14.10 Subp. 6. **See repealer.**

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

14.12 Subp. 11. **Exceedances of emission limits.** If accurate and

14.13 valid data results of a performance test demonstrate an

14.14 exceedance of a standard of performance as described in part

14.15 7011.1225 or in the waste combustor's air emission facility

14.16 permit after normal start-up, the waste combustor owner or

14.17 operator shall undertake the actions in items A to D.

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

14.19 C. If the commissioner determines that compliance has

14.20 not been achieved within 60 days of the initial report of

14.21 exceedance, the waste combustor shall be shut down.

14.22 D. If shutdown was required under item C, the waste

14.23 combustor may be restarted under the conditions specified by the

14.24 commissioner. The owner or operator must notify the

14.25 commissioner in writing of the date on which the owner or

14.26 operator plans to start-up and to begin compliance testing.

14.27 Notification shall be at least ~~ten~~ seven days in advance of the

15.1 compliance test date.

15.2 7011.1280 OPERATOR CERTIFICATION.

15.3 Subpart 1. **Scope.** The commissioner shall certify a person

15.4 provided the person submits an application and can demonstrate

15.5 the completion of:

15.6 A. for operators of Class I, II, A, C, or small

15.7 municipal waste combustor units, ASME provisional certification

15.8 as described in Standard for the Qualification and Certification

15.9 of Resource Recovery Facility Operators, American Society of

15.10 Mechanical Engineers (ASME) QRO-1-1994, incorporated by

15.11 reference in part 7011.1205, for chief facility operators, shift

15.12 supervisors, and control room operators of municipal waste

15.13 combustors; ~~or~~

15.14 B. for operators of medical waste combustors, ASME

15.15 certification as described in Standards of the Qualification and

15.16 Certification of Medical Waste Incinerator Operators, American

15.17 Society of Mechanical Engineers QMO-1-1993, July 1993,

15.18 incorporated by reference in part 7011.5025, subpart 2; or

15.19 C. the coursework and examination program set forth

15.20 in subpart 3.

15.21 Subp. 1a. **Commercial/industrial solid waste incinerator**

15.22 **operators.** For the purposes of applying the requirements of

15.23 this part, a commercial/industrial solid waste incinerator is a

15.24 "non-Class IV" waste combustor.

15.25 Subp. 2. **Personnel who shall be certified.** ~~The following~~

15.26 ~~personnel shall be certified through the process established in~~

15.27 ~~this part:~~

16.1 ~~A. for Class I, II, III, A, C, or D waste combustors,~~

16.2 ~~the chief facility operator and shift supervisors; and~~

16.3 ~~B. for Class IV waste combustors, the operator~~

16.4 ~~supervisor. At each waste combustor facility except for Class~~

16.5 IV facilities, the chief facility operator and shift supervisor

16.6 must be certified. The operator supervisor at Class IV waste

16.7 combustor facilities must be certified.

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

16.12 **For text of item A, see M.R.**

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

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

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

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

17.1 (c) pass the examination described in  
17.2 subpart 5.

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

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

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

17.14 (c) pass the examination described in  
17.15 subpart 5.

17.16 **For text of subp 4, see M.R.**

17.17 Subp. 5. **Examinations.**

17.18 **For text of item A, see M.R.**

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

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

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

17.24 **For text of subp 6, see M.R.**

17.25 Subp. 7. **Renewal.**

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

18.7 7011.1275, for the number of hours as identified as follows:

18.8 (1) ~~Class I, II, III, A, C, or D~~ a non-Class-IV

18.9 waste combustor, 24 hours; and

18.10 (2) Class IV waste combustor, eight hours.

18.11 An individual whose certificate has expired must comply

18.12 with item B or C.

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

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

18.15 STANDARD OF PERFORMANCE FOR SMALL MUNICIPAL

18.16 WASTE COMBUSTORS

18.17 7011.4000 DEFINITIONS.

18.18 Subpart 1. Scope. The terms used in parts 7011.4000 to

18.19 7011.4035 have the meanings given them in this part.

18.20 Subp. 2. Small municipal waste combustor unit. "Small

18.21 municipal waste combustor unit" means a municipal waste

18.22 combustion unit that has the capacity to combust at least 35

18.23 tons per day but no more than 250 tons per day of municipal

18.24 solid waste or refuse-derived fuel.

18.25 7011.4005 STANDARDS APPLICABLE TO SMALL MUNICIPAL WASTE

18.26 COMBUSTORS.

19.1 Subpart 1. Existing small municipal waste combustor

19.2 units. The owner or operator of a small municipal waste

19.3 combustor unit constructed before August 30, 1999, shall comply

19.4 with parts 7011.4000 to 7011.4030 90 days after the effective

19.5 date of those parts. If the owner or operator elects to cease

19.6 operating the small municipal waste combustor unit rather than

19.7 comply, the owner shall cease operating the waste combustor 30

19.8 days after the effective date of those parts.

19.9 Subp. 2. New small municipal waste combustor units. The

19.10 owner or operator of a small municipal waste combustor unit

19.11 constructed after August 30, 1999, or reconstructed or modified

19.12 after June 6, 2001, shall comply with the standards incorporated

19.13 by reference in part 7011.4035. The owner or operator must also

19.14 comply with the applicable requirements in parts 7011.4000 to

19.15 7011.4035.

19.16 Subp. 3. Applicability of waste combustor rules. The

19.17 owner or operator of a small municipal waste combustor is

19.18 subject to the conditions of parts 7011.1201 to 7011.1290 at the

19.19 time of this rule.

19.20 The conditions of parts 7011.1201 to 7011.1290 continue to

19.21 apply to small municipal waste combustors under the following

19.22 conditions:

19.23 A. where the limits of parts 7011.4030 to 7011.4035

19.24 are more restrictive than parts 7011.1201 to 7011.1290, the

19.25 federal rule applies; and

19.26 B. where there is a condition in parts 7011.1201 to

19.27 7011.1290 that is not in parts 7011.4030 to 7011.4035 or where

20.1 parts 7011.1201 to 7011.1290 are more restrictive, state rules

20.2 apply.

20.3 Subp. 4. Mercury emission limits. The owner or operator

20.4 of a small municipal waste combustor must comply with the

20.5 mercury emission limits in this subpart. Emissions must be

20.6 calculated under standard conditions corrected to seven percent

20.7 oxygen on a dry basis.

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

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

20.12 7011.4010 DEFINITION OF ADMINISTRATOR.

20.13 For purposes of administering parts 7011.4000 to 7011.4035,  
20.14 Code of Federal Regulations, title 40, sections 60.1585 to  
20.15 60.1935, and Code of Federal Regulations, title 40, sections  
20.16 60.1000 to 60.1400, the term "administrator" means the  
20.17 commissioner of the Minnesota Pollution Control Agency, except  
20.18 in the instances identified as follows:

20.19 A. in Code of Federal Regulations, title 40, section  
20.20 60.1230(f) or 60.1720(e), alternative continuous monitoring  
20.21 methods must be approved by the Environmental Protection Agency  
20.22 administrator under the procedures of Code of Federal  
20.23 Regulations, title 40, section 60.13(i);

20.24 B. in Code of Federal Regulations, title 40, section  
20.25 60.1300(e) or 60.1790(e), using a performance sampling reference  
20.26 method with minor changes in methodology, equivalent method,  
20.27 alternative method, shorter sampling time or smaller sampling  
21.1 volume must be approved by the Environmental Protection Agency  
21.2 administrator under the procedures of Code of Federal  
21.3 Regulations, title 40, section 60.8(b); and

21.4 C. in Code of Federal Regulations, title 40, section  
21.5 60.1430 or 60.1905, an alternative submittal date for the  
21.6 semiannual out-of-compliance reports or annual reports must be  
21.7 approved by the Environmental Protection Agency administrator  
21.8 under the procedures of Code of Federal Regulations, title 40,  
21.9 section 60.19(c).

21.10 7011.4015 OPERATOR CERTIFICATION.

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

21.19 7011.4030 INCORPORATION OF STANDARDS OF PERFORMANCE FOR EXISTING  
21.20 SMALL MUNICIPAL WASTE COMBUSTORS.

21.21 Code of Federal Regulations, title 40, sections 60.1645 to  
21.22 60.1905, 60.1935, and 60.1940, as amended, entitled "Emission  
21.23 Guidelines and Compliance Times for Small Municipal Waste  
21.24 Combustion Units Constructed on or Before August 30, 1999" is  
21.25 adopted and incorporated by reference.

21.26 7011.4035 INCORPORATION OF NEW SOURCE PERFORMANCE STANDARD BY  
22.1 REFERENCE FOR SMALL MUNICIPAL WASTE COMBUSTORS.

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

22.8 STANDARDS OF PERFORMANCE FOR MEDICAL

22.9 WASTE COMBUSTORS

22.10 7011.5000 DEFINITIONS.

22.11 Subpart 1. **Scope.** As used in this chapter and chapter

22.12 7007, the terms in this part have the meanings given them.

22.13 Subp. 2. **Medical waste.** "Medical waste" means hospital

22.14 waste as defined in Code of Federal Regulations, title 40,

22.15 section 60.51c; medical/infectious waste as defined in Code of

22.16 Federal Regulations, title 40, section 60.51c; and infectious

22.17 waste as defined in Minnesota Statutes, section 116.76,

22.18 subdivision 12.

22.19 Subp. 3. **Medical waste combustor.** "Medical waste

22.20 combustor" means a waste combustor which burns greater than ten

22.21 percent medical waste by weight.

22.22 Subp. 4. **Normal start-up.** "Normal start-up" means the

22.23 period of time between the initial start-up of a new, modified,

22.24 or retrofitted medical waste combustor unit, and 60 days after

22.25 achieving the maximum production rate at which the emissions

22.26 unit will operate or 180 days after initial start-up, whichever

22.27 comes first.

23.1 Subp. 5. **12-hour rolling average.** "12-hour rolling

23.2 average" means the average of all hourly emission concentrations

23.3 when the emissions unit is operating and combusting waste,

23.4 calculated each hour as the arithmetic average of the previous

23.5 12 operating hours, not including start-up, shutdown, or periods

23.6 of malfunction.

23.7 7011.5005 STANDARDS APPLICABLE TO MEDICAL WASTE COMBUSTORS.

23.8 Subpart 1. **Existing medical waste incinerators.** The owner

23.9 or operator of a medical waste combustor constructed on or

23.10 before June 20, 1996, must comply with parts 7011.5000 to

23.11 7011.5025, 90 days after the effective date of those parts. If

23.12 the owner or operator of a medical waste combustor elects to

23.13 cease operating the medical waste combustor rather than comply,

23.14 the owner shall cease operating the combustor 30 days after the

23.15 effective date of those parts.

23.16 Subp. 2. **New medical waste combustors.** The owner or

23.17 operator of a medical waste combustor constructed after June 20,

23.18 1996, or modified after March 16, 1998, must comply with parts

23.19 7011.5000 to 7011.5025 within 180 days of normal start-up.

23.20 Subp. 3. **Additional facility standards.** The owner or

23.21 operator of a medical waste combustor shall comply with the

23.22 following requirements:

23.23 A. part 7011.1280, if the owner or operator chooses

23.24 to comply with the operator certification requirements of Code

23.25 of Federal Regulations, title 40, section 60.53c, as amended, by

23.26 obtaining certification through the Minnesota Pollution Control

23.27 Agency;

24.1 B. general solid waste management requirements as

24.2 follows:

24.3 (1) the security requirements of part 7035.2535,

24.4 subpart 3;

24.5 (2) the emergency preparedness and prevention

24.6 plans and emergency procedures prepared in accordance with parts

24.7 7035.2595 and 7035.2605;

24.8 (3) the solid waste transfer facility

24.9 requirements in part 7035.2865, subparts 4 and 5; and  
24.10 (4) the infectious waste management requirements  
24.11 in parts 7035.9100 to 7035.9150;  
24.12 C. the mercury waste separation plan requirements in  
24.13 part 7011.1255; and  
24.14 D. the conditions of parts 7011.5000 to 7011.5025.  
24.15 **Subp. 4. Emission limits for mercury, lead, and cadmium.**  
24.16 The owner or operator of a medical waste combustor must comply  
24.17 with the mercury, lead, and cadmium emission limits described in  
24.18 this subpart. Emissions shall be calculated under standard  
24.19 conditions corrected to seven percent oxygen on a dry volume  
24.20 basis.

24.21	<u>Mercury</u>	<u>0.055 mg/dscm or 85 percent removal,</u>
24.22		<u>whichever is less stringent</u>
24.24	<u>Lead</u>	<u>0.050 mg/dscm or 98 percent removal,</u>
24.25		<u>whichever is less stringent</u>
24.27	<u>Cadmium</u>	<u>0.040 mg/dscm or 90 percent removal,</u>
24.28		<u>whichever is less stringent</u>

24.29 7011.5010 CONTINUOUS MONITORING REQUIREMENTS FOR MEDICAL WASTE  
24.30 COMBUSTORS.  
24.31 **Subpart 1. Scope.** The owner or operator of a medical  
25.1 waste combustor shall operate monitoring systems as required in  
25.2 this part. The monitors must be installed, calibrated,  
25.3 maintained, and operated in accordance with the requirements of  
25.4 parts 7017.1002 to 7017.1220. All valid data must be used to  
25.5 calculate emission concentrations or emission reductions, even  
25.6 if the conditions of part 7017.1090 are not met.  
25.7 **Subp. 2. Required flue gas monitors.** The owner or  
25.8 operator of a medical waste combustor shall install and operate  
25.9 the monitors described in items A and B.  
25.10 **A.** A carbon monoxide emissions monitor must be  
25.11 installed at the waste combustor outlet. The monitor shall  
25.12 continuously read the carbon monoxide concentration of the flue  
25.13 gas and emissions must be calculated as a 12-hour rolling  
25.14 average. The 12-hour rolling average must be calculated from  
25.15 one-hour averages.  
25.16 **B.** An oxygen monitor must be installed. The monitor  
25.17 must be located where carbon monoxide is monitored, to report  
25.18 corrected concentrations of carbon monoxide. The monitor shall  
25.19 continuously read the oxygen concentration of the flue gas and  
25.20 one-hour averages must be collected and reported.  
25.21 **Subp. 3. Recording data from continuous monitoring.** In  
25.22 addition to the information required by part 7017.1130, the  
25.23 owner or operator of a medical waste combustor unit shall  
25.24 maintain a record of the calendar date, and all 12-hour rolling  
25.25 average carbon monoxide emission concentrations, corrected to  
25.26 seven percent oxygen concentration.  
25.27 **Subp. 4. Exceedances of monitored operating limits.** In  
26.1 Code of Federal Regulations, title 40, section 60.56c(d), (e),  
26.2 (f), and (g), operating the waste combustor unit above or below  
26.3 the allowable maximum or minimum ranges for various operating  
26.4 parameters is a violation of the emission limit, unless

26.5 otherwise demonstrated by performance testing at the condition.

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

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

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

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

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

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

27.8 7011.5015 PERFORMANCE TESTING.

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

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

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

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

27.22 A. In addition to the annual testing in Code of  
27.23 Federal Regulations, title 40, sections 60.56c(c)(2) and  
27.24 62.14451, once annually for lead, cadmium, and PCDD/PCDF but no  
27.25 later than 12 months following the previous performance test.

27.26 B. If the annual performance test required in item A  
27.27 for a three-year period shows compliance with standards in part  
28.1 7011.5005 or the conditions of the facility's permit, the owner  
28.2 or operator may continue to conduct annual testing, or may  
28.3 choose to conduct performance tests every three years. At a  
28.4 minimum, a performance test for particular matter, hydrogen

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

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

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

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

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

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

29.17 A. The owner or operator shall report the exceedance  
29.18 to the commissioner as soon as reasonably possible, giving  
29.19 consideration to matters of plant or worker safety or access to  
29.20 communications and the applicable reporting provisions of part  
29.21 7007.0600, subpart 6.

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

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

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

30.13 7011.5020 RECORDS AND REPORTING.

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

30.18 Subp. 2. Semiannual report. When submitting the  
30.19 semiannual report required by Code of Federal Regulations, title  
30.20 40, section 60.58c, the owner or operator shall include the  
30.21 following information related to the operation of continuous  
30.22 emissions monitors:

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

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

31.2 7011.5025 INCORPORATION BY REFERENCE OF STANDARDS.

31.3 Subpart 1. Emission control requirements for existing  
31.4 medical waste combustors. Code of Federal Regulations, title  
31.5 40, part 62, subpart HHH, entitled "Federal Plan Requirements  
31.6 for Hospital/Medical/Infectious Waste Incinerators Constructed  
31.7 on or before June 20, 1996," as amended, is adopted and  
31.8 incorporated.

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

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

31.24 STANDARDS OF PERFORMANCE FOR AIR CURTAIN  
31.25 INCINERATORS

31.26 7011.5500 AIR CURTAIN INCINERATOR DEFINED.

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

32.6 7011.5505 APPLICABILITY OF STANDARDS.

32.7 Subpart 1. Air curtain incinerators combusting yard

32.8 **waste.** Air curtain incinerators combusting solely yard waste

32.9 are subject to the standards of performance of part 7011.5510.

32.10 For purposes of applying the standards of performance of this

32.11 part, "yard waste" means grass, grass clippings, bushes, shrubs,

32.12 and clippings from bushes and shrubs. Yard waste comes from

32.13 residential, commercial/retail, institutional, or industrial

32.14 sources as part of maintaining yards or other private or public

32.15 lands. Yard waste does not include:

32.16 A. construction, renovation, and demolition wastes

32.17 that are exempt from the definition of "municipal solid waste"

32.18 in Code of Federal Regulations, title 40, section 60.1465; and

32.19 B. clean wood that is exempt from the definitions of

32.20 "municipal solid waste" in Code of Federal Regulations, title

32.21 40, section 60.1465.

32.22 Subp. 2. Air curtain incinerators combusting wood waste,

32.23 **clean lumber, or other wood mixtures.** Regardless of the date

32.24 the air curtain incinerator was first constructed or operated,

32.25 air curtain incinerators combusting wood waste, clean lumber, or

32.26 any combination of wood waste, clean lumber, and yard waste are

32.27 subject to the standards of performance of part 7011.5515. For

33.1 purposes of applying the standards of performance of part

33.2 7011.5515, the definitions in items A to C apply.

33.3 A. "Wood waste" means untreated wood and untreated

33.4 wood products, including whole or chipped tree stumps, trees,

33.5 whole or chipped tree limbs, bark, sawdust, chips, scraps,

33.6 slabs, millings, and shavings. Wood waste does not include:

33.7 (1) grass, grass clippings, bushes, shrubs, and

33.8 clippings from bushes and shrubs from residential,

33.9 commercial/retail, institutional, or industrial sources as part

33.10 of maintaining yards or other private or public lands;

33.11 (2) construction, renovation, or demolition

33.12 wastes; or

33.13 (3) clean lumber.

33.14 B. "Clean lumber" means wood or wood products that

33.15 have been cut or shaped and include wet, air-dried, and

33.16 kiln-dried wood products. Clean lumber does not include wood

33.17 products that have been painted, pigment-stained, or

33.18 pressure-treated by compounds such as chromate copper arsenate,

33.19 pentachlorophenol, and creosote.

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

33.21 Subp. 3. Air curtain incinerators combusting other

33.22 **wastes.** Air curtain incinerators are prohibited from combusting

33.23 solid wastes other than animal carcasses or those identified in

33.24 subparts 1 and 2.

33.25 7011.5510 INCORPORATION OF STANDARDS FOR AIR CURTAIN

33.26 INCINERATORS BURNING 100 PERCENT YARD WASTE.

33.27 Code of Federal Regulations, title 40, sections 60.1435 to

34.1 60.1455, as amended, entitled "Air Curtain Incinerators That

34.2 Burn 100 Percent Yard Waste" are adopted and incorporated by

34.3 reference.

34.4 7011.5515 INCORPORATION OF STANDARDS FOR AIR CURTAIN

34.5 INCINERATORS BURNING WOOD WASTES.

34.6 Code of Federal Regulations, title 40, sections 60.2245 to  
34.7 60.2260, as amended, entitled "Air Curtain Incinerators" are  
34.8 adopted and incorporated by reference.  
34.9 STANDARDS OF PERFORMANCE FOR COMMERCIAL AND  
34.10 INDUSTRIAL SOLID WASTE INCINERATOR UNITS  
34.11 7011.5600 DEFINITIONS.  
34.12 Subpart 1. Scope. The terms used in parts 7011.5600 to  
34.13 7011.5625 have the meanings given them in this part.  
34.14 Subp. 2. Commercial and industrial solid waste  
34.15 incinerator. "Commercial and industrial solid waste incinerator"  
34.16 means:  
34.17 A. an enclosed device combusting solid waste using  
34.18 controlled flame combustion without energy recovery that is a  
34.19 distinct operating unit of any commercial or industrial  
34.20 facility, including field-erected, modular, and custom built  
34.21 incineration units operating with starved or excess air; or  
34.22 B. an air curtain incinerator combusting solid waste  
34.23 without energy recovery that is a distinct operating unit of any  
34.24 commercial or industrial facility.  
34.25 Subp. 3. Four-hour block average. "Four-hour block  
34.26 average" means the average of all hourly emission rates when the  
35.1 emissions unit is operating and combusting solid waste measured  
35.2 over six discrete four-hour periods beginning at midnight.  
35.3 7011.5605 APPLICABILITY.  
35.4 Regardless of the date the commercial and industrial solid  
35.5 waste incinerator was constructed or operated, the commercial  
35.6 and industrial solid waste incinerator must be in compliance  
35.7 with the conditions of parts 7011.5600 to 7011.5630.  
35.8 7011.5610 STANDARDS APPLICABLE TO COMMERCIAL AND INDUSTRIAL  
35.9 SOLID WASTE INCINERATORS.  
35.10 The owner or operator of a commercial and industrial solid  
35.11 waste incinerator shall comply with the emission limits,  
35.12 notification, monitoring, testing, recordkeeping, and reporting  
35.13 requirements of the new source performance standards  
35.14 incorporated in part 7011.5625. In addition, the owner or  
35.15 operator shall:  
35.16 A. use a continuous emissions monitor to determine  
35.17 compliance with the carbon monoxide limit, based on a four-hour  
35.18 block average;  
35.19 B. certify operators according to the requirements of  
35.20 part 7011.1280;  
35.21 C. comply with general solid waste management  
35.22 requirements as follows:  
35.23 (1) the security requirements of part 7035.2535,  
35.24 subpart 3;  
35.25 (2) the emergency preparedness and prevention  
35.26 plans and emergency procedures prepared in accordance with parts  
36.1 7035.2605 and 7035.2595; and  
36.2 (3) the solid waste transfer facility  
36.3 requirements in part 7035.2865, subparts 4 and 5; and  
36.4 D. comply with the mercury waste separation plan  
36.5 requirements of part 7011.1255.  
36.6 7011.5615 CONTINUOUS MONITORING REQUIREMENTS FOR COMMERCIAL AND  
36.7 INDUSTRIAL SOLID WASTE INCINERATORS.

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

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

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

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

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

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

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

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

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

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

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

38.7 7011.5620 PERFORMANCE TESTING.

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

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

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

38.16 Subp. 2. Performance testing frequency. The owner or  
38.17 operator of a commercial and industrial solid waste incinerator  
38.18 shall conduct the performance tests according to the schedule in  
38.19 Code of Federal Regulations, title 40, sections 60.2140 and  
38.20 60.2150. In addition, the owner or operator shall conduct the  
38.21 tests as described in items A to C.

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

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

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

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

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

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

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

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

40.17 A. The owner or operator shall report the exceedance  
40.18 to the commissioner as soon as reasonably possible, giving  
40.19 consideration to matters of plant or worker safety or access to  
40.20 communications and the applicable reporting provisions of part  
40.21 7007.0600, subpart 6.

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

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

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

41.11 7011.5625 INCORPORATION OF NEW SOURCE PERFORMANCE STANDARD BY  
41.12 REFERENCE FOR COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATORS.

41.13 Code of Federal Regulations, title 40, sections 60.2000 to  
41.14 60.2265, as amended, entitled "Standards of Performance for  
41.15 Commercial and Industrial Solid Waste Incineration Units for  
41.16 Which Construction is Commenced After November 30, 1999 or for  
41.17 Which Modification or Reconstruction is Commenced on or after  
41.18 June 1, 2001." is adopted and incorporated by reference.

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