Pollution Control Agency

Proposed Permanent Rules Relating to Mercury Emissions

7005.0100 DEFINITIONS.

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

Subp. 3c. **Coal.** "Coal" has the meaning given in part 7011.1100, subpart 2.

Subp. 3d. **Coal-derived fuel.** "Coal-derived fuel" means any fuel, whether in a solid, liquid, or gaseous state, produced by the mechanical, thermal, or chemical processing of coal.

Subp. 3e. **Coal-fired.** "Coal-fired" means any emission unit or stationary source that uses any amount of coal or coal-derived fuel, alone or in combination with any amount of any other fuel.

[For text of subps 4 to 7, see M.R.]

Subp. 7a. **Control efficiency.** "Control efficiency" has the meaning given in part 7011.0060, subpart 3a.

[For text of subps 8 to 23, see M.R.]

Subp. 23a. **Mercury.** "Mercury" means all inorganic and organic compounds of mercury, including elemental mercury, expressed as elemental mercury.

Subp. 23b. **Mercury emission source.** "Mercury emission source" means a stationary source with actual mercury emissions of three pounds per year or more, after controls. For purposes of this subpart, "mercury emissions" do not include fugitive emissions of mercury.

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

7007.0502 MERCURY EMISSIONS REDUCTION PLANS.

Subpart 1. **Statewide mercury air emissions goal.** The statewide mercury air emissions goal of 789 pounds per year from Minnesota sources, is to be achieved by

December 31, 2025, as described in the agency's total maximum daily load study approved by the United States Environmental Protection Agency on March 27, 2007.

Subp. 2. **Applicability.** The owners or operators of an existing mercury emission source must comply with this part. For the purposes of this part, "existing mercury emission source" means that the owners or operators have been issued an air emission permit by the agency as of the effective date of this part. If the actual mercury emissions from the existing mercury emission source are below the threshold of three pounds per year or more for three consecutive years, then the stationary source is no longer considered a mercury emission source, and the owner or operator must:

A. retain records of the actual mercury emissions for the qualifying three years on site for five years from the date the determination was made;

B. make the records available for inspection and submit the records, within specified timelines, upon request of the commissioner; and

C. immediately resume compliance with applicable requirements for mercury emission sources if a physical or operational change causes the stationary source to again become a mercury emission source.

Subp. 3. **Mercury emissions reduction plan.** Owners or operators of an existing mercury emission source must prepare a mercury emissions reduction plan as described in this part unless the mercury emission source is:

A. a mercury emission source subject to Minnesota Statutes, sections 216B.68 to 216B.688;

B. a mercury emission source that is a stationary source that has only combustion devices and the combustion emissions of the source are from only natural gas, liquid propane gas, propane, or oil fuels;

C. a mercury emission source subject to a performance standard for mercury in parts 7011.0561, 7011.1201 to 7011.1285, 7011.1350 to 7011.1370, 7011.7050, or 7011.7055;

D. a mercury emission source that:

(1) holds a Minnesota industrial storm water multisector general permit as required by part 7090.3010;

(2) has a primary SIC code in Sector M or Sector N of the Minnesota industrial storm water multisector general permit;

(3) is required to prepare a mercury management plan under part 7090.3010; and

(4) is in compliance with the provisions of the mercury management plan; or

E. a mercury emission source that has an air emission permit with a mercury emissions limit or an enforceable agreement that is in effect with the commissioner and contains an enforceable schedule of mercury reductions and the reductions are equal to or greater than the reductions required in subpart 6.

Subp. 4. **Mercury emissions reduction plan; submittal deadlines.**

A. The owners or operators of an existing mercury emission source that does not meet an exception under subpart 3 must prepare and submit a mercury emissions reduction plan to the commissioner no later than June 30, 2015, for approval and inclusion in a permit or other enforceable document, or as provided under item B.

B. The owners or operators of an existing mercury emission source that is a ferrous mining or processing facility must submit a mercury emissions reduction plan by December 30, 2016, for approval and inclusion in a permit or other enforceable document.

Subp. 5. **Mercury emissions reduction plan elements and format.**

A. The owners or operators of an existing mercury emission source must submit a mercury emissions reduction plan that complies with this item:

(1) the plan must be submitted in a format specified by the commissioner and must contain:

(a) a description of the specific control equipment, processes, materials, or work practices that will be employed to achieve the applicable control efficiencies, reductions, or allowable emissions and work practices listed in subpart 6 and a schedule for adopting the processes or installation of equipment;

(b) the mercury reduction, control efficiency, or emission rate that each emissions unit will achieve once the plan for that emissions unit is fully implemented;

(c) a description of how operating parameters will be optimized to maintain the mercury control efficiency in the plan;

(d) a proposed periodic monitoring and record-keeping system for proposed control equipment, processes, materials, or work practices or citation to an applicable requirement for monitoring and record keeping consistent with chapter 7017. An evaluation of the use of a continuous mercury emission monitoring system must be included in the plan;

(e) if the plan includes elements that meet the definition of a modification under part 7007.0100, subpart 14, or requires an air permit amendment or notification under part 7007.1150, a projected schedule for submitting the appropriate permit applications; and

(f) the date that the mercury reductions proposed in the plan will be demonstrated. This date must be no later than January 1, 2025, or as specified in subpart 6; or

(2) if the owner or operator determines that the mercury reductions listed in subpart 6, if applicable, are not technically achievable by the identified compliance date, the owners or operators may submit an alternative plan to reduce mercury emissions, in a format specified by the commissioner. The alternative plan must contain:

(a) the plan elements in item A, substituting the owners' or operators' proposed reduction for the requirements under subpart 6;

(b) a detailed explanation of why the mercury reductions listed in subpart 6 are not technically achievable;

(c) a demonstration that air pollution control equipment, work practices, or the use of alternative fuels or raw materials have been optimized such that the source is using the best controls for mercury that are technically feasible; and

(d) an estimate of the annual mass of mercury emitted under the requirements of subpart 6 and the proposed alternative plan.

B. The commissioner shall identify plan deficiencies and notify the owners or operators of the deficiencies.

Subp. 6. **Mercury control and work practices.** Unless the requirements of subpart 3 are met, the owners or operators of an existing mercury emission source that is in a source category listed in this subpart and required to submit a plan under subpart 4 must include in the plan the minimum mercury control requirements for source categories listed in this subpart.

A. For ferrous mining or processing:

(1) the plan must address the indurating furnace or kiln of a taconite processing facility or the rotary hearth furnace of a direct-reduced iron facility and must demonstrate that by January 1, 2025, mercury emissions from the indurating furnace or kiln or rotary hearth furnace do not exceed 28 percent of the number of pounds of mercury

emitted in 2010. The commissioner shall determine the pounds of mercury emitted in 2010. If the facility held a Minnesota Pollution Control Agency construction permit but was not operating in 2010, the operating furnace must not exceed 28 percent of the mercury potential to emit included in the permit authorizing construction; and

(2) the plan may accomplish reductions as:

(a) 28 percent of 2010 emissions for each furnace;

(b) 28 percent of 2010 emissions across all furnaces at a single stationary source; or

(c) 28 percent of 2010 emissions across furnaces at multiple stationary sources. Owners of the stationary sources must enter into an enforceable agreement as provided by Minnesota Statutes, section 115.071, subdivision 1, to reduce mercury emissions between the stationary sources. If this option is selected, the reduction plan must include the enforceable agreement. Execution of an enforceable agreement under this part does not relieve the owner or operator of the obligation to obtain a permit or permit amendment if otherwise required under this chapter.

B. For iron and steel melters, the plan must demonstrate that, by June 30, 2018, mercury emissions from the iron or steel melter shall not exceed 77×10^{-6} pounds of mercury per ton (35 milligrams per ton) of iron or steel produced. For purposes of this item:

(1) "iron or steel melter" means a stationary source where shredded motor vehicle scrap or other undifferentiated shredded ferrous scrap is melted to produce steel or iron products;

(2) "motor vehicle scrap" means vehicle or automobile bodies, including automobile body hulks, that have been processed through a shredder. Motor vehicle scrap does not include miscellaneous vehicle parts, such as wheels, bumpers, or other components that do not contain mercury switches; and

(3) "undifferentiated shredded ferrous scrap" means white goods or industrial equipment that has been processed through a shredder and the component parts were not separated and sorted prior to shredding.

C. For industrial, commercial, and institutional (ICI) coal-fired boilers, the plan must demonstrate reductions of 70 percent from 2005 mercury emissions at all ICI coal-fired boilers that emit five pounds per year or more. The commissioner shall determine the pounds of mercury emitted in 2005. For each ICI coal-fired boiler, within one year of the effective date of this part, the owner or operator must determine whether the reduction of 70 percent is met and must retain records of the determination on site for five years from the date the determination was made.

(1) A reduction plan under this part is not required if:

(a) actual mercury emissions from the ICI coal-fired boiler, considering existing controls, are less than five pounds per year; or

(b) actual mercury emissions from the ICI coal-fired boiler are greater than five pounds per year and 70 percent of the mercury present in the fuel when combusted is captured and not emitted.

(2) If actual mercury emissions are five pounds per year or more and emission control is less than 70 percent, the owner or operator must evaluate actual mercury emissions that will be achieved under the federal regulations incorporated under part 7011.7050 or 7011.7055 relative to the 70 percent reduction. If the emission limits, control equipment, or operating practices under the federal regulations do not achieve the 70 percent reduction, the owner or operator must ensure that by January 1, 2018, mercury emissions are reduced by at least 70 percent from 2005 levels.

D. For mercury emission sources with processes that individually emit three or more pounds of mercury per year and that are not otherwise identified in this subpart, owners or operators must submit a plan to the commissioner that shows that air pollution

control equipment, work practices, or the use of alternative fuels or raw materials has been optimized such that the mercury is reduced by 70 percent or greater from the input of mercury to the process or processes emitting mercury.

Subp. 7. **Posting of plans.** The commissioner shall electronically post the mercury emissions reduction plans submitted by the owners or operators of an existing mercury emission source on the agency's Internet site. A person may request to receive notification from the commissioner of plans received.

Subp. 8. **Mercury emissions reduction plan implementation.** The owner or operator must implement the mercury emissions reduction plan as approved by the commissioner. The owners or operators must submit annual progress reports to the commissioner by December 30 of each year starting with the year following plan submittal until one full year after achievement of the reduction as described in the plan. The report must provide the status of facility modifications and actions taken in the preceding 12 months on each of the plan elements in subpart 5.

Subp. 9. **Modifications of plans.**

A. The owners or operators of an existing mercury emission source may request modification of the approved mercury emissions reduction plan or enforceable agreement by submitting a written request to the commissioner. The request must include:

(1) a description of the modification;

(2) reasons for the modification; and

(3) if the request is to modify the mercury reduction, the information required under subpart 5, item A, subitem (1), for the requested new reduction.

B. The owners or operators may not implement any proposed plan modifications until the commissioner approves the modification, issues an amended permit, or revises an enforceable agreement, as applicable.

7011.0561 CONTROL OF MERCURY FROM ELECTRIC GENERATING UNITS.

Subpart 1. **Applicability.** The owners or operators of a coal-fired electric generating unit that have demonstrated actual mercury emissions of five pounds per year or more must comply with this part, except as provided under subpart 3.

Subp. 2. **Definitions.** The terms used in this part have the meanings given them in this subpart.

A. "Boiler operating day" means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam-generating unit. It is not necessary for fuel to be combusted during the entire 24-hour period.

B. "Coal-fired electric generating unit" or "coal-fired EGU" means an electric generating unit that burns coal either exclusively or with any fuels in any amount.

C. "Electric generating unit" or "EGU" means a fossil-fuel combustion unit greater than 25 megawatt (MW) electric that serves a generator that produces electricity for sale. A fossil-fuel fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity to any utility power distribution system for sale is considered an electric generating unit.

D. "Grace period" means a specified number of hours after the deadline of a required quality assurance test has passed, within which the test may be performed without the loss of data.

E. "Operating hour" means a clock hour in which an EGU combusts any fuel for part of or for the entire hour.

F. "Quality-assured operating quarter" means a calendar quarter in which there are at least 168 operating hours.

Subp. 3. **Exemption.** The owners or operators of a coal-fired EGU that does not combust coal for more than ten percent of the average annual heat input during any three consecutive calendar years or for more than 15 percent of the annual heat input during any calendar year is not subject to this part.

Subp. 4. **Performance standards for mercury emissions.** Unless the commissioner establishes an alternative mercury emissions reduction under Minnesota Statutes, section 216B.687, subdivision 3, the owners or operators of coal-fired electric generating units that do not qualify for the exemption under subpart 3 must control mercury emissions as described in this subpart.

A. By January 1, 2018, owners or operators of a coal-fired EGU with a nameplate electricity generation capacity greater than 100 MW must:

(1) control mercury such that 90 percent of the mercury present in the fuel when combusted is captured and not emitted; or

(2) demonstrate that the unit emits no more than 0.8 pounds of mercury per trillion British thermal units (Tbtu) of heat input.

B. By January 1, 2025, owners or operators of a coal-fired EGU that is not a supplemental unit as defined in Minnesota Statutes, sections 216B.682 to 216B.688, and with a nameplate capacity less than or equal to 100 MW must:

(1) control mercury such that 70 percent of the mercury present in the fuel when combusted is captured and not emitted; or

(2) demonstrate that the unit emits no more than 2.3 pounds of mercury per Tbtu of heat input.

C. By January 1, 2018, owners or operators of a coal-fired EGU that is a supplemental unit as defined in Minnesota Statutes, sections 216B.682 to 216B.688, must:

(1) control mercury such that 70 percent of the mercury present in the fuel when combusted is captured and not emitted; or

(2) demonstrate that the unit emits no more than 2.3 pounds of mercury per Tbtu heat input.

Subp. 5. **Monitoring mercury emissions.** The owners or operators of a coal-fired EGU must monitor mercury emissions as described in this subpart.

A. Coal-fired EGUs with a generating capacity equal to or greater than 250 MW (net) must continuously monitor mercury at a representative sampling location following the outlet of the last air pollution control device. A continuous monitor is either a continuous emissions monitoring system (CEMS) for mercury or a sorbent trap monitoring system capable of monitoring mercury as described in this part.

(1) If the system is a CEMS for mercury, the owners or operators must prepare a monitoring plan according to subpart 6. If the system is a sorbent trap system, the owner or operator must prepare a monitoring plan according to subpart 7. The plan must be submitted within 180 days of the effective date of this part or as established by a permit, whichever is later.

(2) If applicable federal regulations establish requirements for installation and operation of continuous monitoring of the coal-fired EGU, the monitoring plan must describe the compliance procedures for the monitors according to the federal regulation, in addition to the requirements of this part.

B. If a coal-fired EGU with a generating capacity less than 250 MW does not use a CEMS or a sorbent trap monitoring system to monitor mercury, the owner or operator must conduct performance testing for mercury according to this item at least once every 12 months and must complete the test no more than 13 months after the previous test. Owners or operators may conduct performance stack tests for mercury no less frequently than once every three years, but no longer than 37 months after the previous

performance test. If the performance tests for at least the immediately preceding three consecutive years show mercury reduction is greater than or equal to 85 percent or mercury emissions are at or below 1.2 pounds of mercury per Tbtu of heat input and if there are no changes in the operation of the EGU or air pollution control equipment that could increase emissions, the owner or operator must resume annual performance stack tests. Subitems (1) to (3) apply to performance testing conducted under this item.

(1) Performance testing must be conducted using Code of Federal Regulations, title 40, part 60, Appendix A-8, Method 30B. The initial performance test must be conducted for 30 boiler operating days. Sorbent traps must be used no longer than ten boiler operating days. Subsequent performance tests may be ten boiler operating days long.

(2) Compliance is determined by calculating the average mercury concentration from all sorbent trap results.

(3) Performance testing must be conducted according to parts 7017.2001 to 7017.2060 unless modified by this subpart.

Subp. 6. **Monitoring provisions; CEMS for mercury.** This subpart applies to the measurement of mercury from a coal-fired EGU using a continuous emissions monitoring system (CEMS) for mercury. "CEMS for mercury" means the total equipment required to measure the total vapor phase mercury concentration, consisting of three major subsystems: sample acquisition, transport, and conditioning; mercury converter and analyzer; and a data acquisition and handling system.

A. The monitoring plan for the CEMS for mercury must include:

(1) a description of the CEMS span value and justification for the span value's selection;

(2) methods, procedures, equations, and performance specifications, both main and alternate, to be used to conduct a certification test of the CEMS for mercury. The

certification must include a seven-day calibration error test, a linearity check, a three-level system integrity check, a cycle time test, and a relative accuracy test audit as described in Code of Federal Regulations, title 40, part 60, Appendices for Test Methods;

(3) methods, procedures, equations, and performance specifications to be used for ongoing daily calibration error tests, system integrity checks, linearity checks, or three-level system integrity checks, and a relative accuracy test audit. Relative accuracy must be calculated as described in Code of Federal Regulations, title 40, part 60, Appendix B: Performance Specification 2, section 12, or Performance Specification 6;

(4) a description of calculations used to convert mercury concentration values to the appropriate units of the emission standard; and

(5) procedures to provide substituted data in the event that monitors are not collecting mercury emissions data and data is missing from the monitoring record.

B. The CEMS must operate in compliance with parts 7017.0100, 7017.1002, 7017.1030, 7017.1080 to 7017.1130, 7017.1150, and 7017.1180.

C. Owners or operators must conduct routine quality assurance and control tests on a frequency as follows:

(1) a calibration error test must be conducted daily using either mid- or high-level gas. The calibrations are not required when the EGU is not in operation;

(2) single-level system integrity checks must be conducted weekly, meaning once every 168 operating hours for systems with mercury converters. This test is not required if daily calibrations are done with a National Institute of Standards and Technology-traceable source of oxidized mercury;

(3) linearity checks or three-level system integrity checks must be conducted quarterly in each quality-assured operating quarter and no less than once every four calendar quarters;

(4) a relative accuracy test audit is required annually, meaning once every four quality-assured operating quarters. This deadline may be extended for non-quality-assured operating quarters up to a maximum of eight quarters from the quarter of the previous test; and

(5) a 720 continuous-hour grace period is allowed for relative accuracy test audits.

D. Calibration gas mercury concentrations used to conduct quality assurance tests on a CEMS must have the following concentrations:

(1) zero-level with a mercury concentration below the detectable limit of the analyzer;

(2) low-level with a mercury concentration of 20 to 30 percent of the span value of the analyzer;

(3) mid-level with a mercury concentration of 50 to 60 percent of the span value of the analyzer;

(4) high-level with a mercury concentration of 80 to 100 percent of the span value of the analyzer; and

(5) alternative concentrations may be used if approved by the commissioner. The data collected with the alternative concentration must be improved, given the applicable limit to qualify for approval.

E. Measurement or adjustment of the CEMS mercury data for bias is not required.

F. The owners or operators must certify, operate, maintain, and quality-assure the CEMS used to convert measured hourly mercury concentrations to applicable emission standards according to the applicable provisions of Code of Federal Regulations, title 40, part 75.

G. The owners or operators must reduce the hourly averages data from the CEMS for mercury according to Code of Federal Regulations, title 40, section 60.13(h)(2).

H. The owners or operators must convert hourly emissions concentrations to 30 boiler operating day rolling average (lb/Tbtu) according to appropriate emission rate equations of Code of Federal Regulations, title 40, part 60, Appendix A-7, Method 19.

I. Using fuel sampling data generated by the procedures in subpart 8, the owners or operators must demonstrate that the output from item G is no greater than ten percent of the input from fuel or demonstrate that emissions in item H are no greater than those specified in subpart 4.

J. The first 30 days of the monitoring period are used to determine compliance with the mercury emissions concentration limit.

Subp. 7. **Monitoring provisions; sorbent trap monitoring system.**

A. Owners or operators of a coal-fired EGU using a sorbent trap monitoring system must follow the monitoring provisions under this subpart for the measurement of mercury. "Sorbent trap monitoring system" means the equipment necessary to monitor mercury emissions continuously by using paired sorbent traps containing iodated charcoal or other sorbent medium. The system consists of sample acquisition, transport, conditioning, sorbent traps, and an automated data acquisition and handling system. The system samples the stack gas at a constant proportional rate relative to the stack gas volumetric flow rate. The sampling is a batch process. The average mercury concentration in the stack gas for the sampling period is determined, in units of micrograms per dry standard cubic meter (μg/dscm), based on the sample volume measured by the gas flow meter and the mass of mercury collected in the sorbent traps. The use of a sorbent trap monitoring system also requires the installation and certification of a stack gas flow monitor to maintain the ratio of stack gas flow rate to sample flow rate.

B. The monitoring plan for the sorbent trap monitoring system must include:

(1) methods, procedures, equations, and performance specifications, both main and alternate, to be used to conduct a certification test of the sorbent trap monitoring system;

(2) methods, procedures, equations, and performance specifications, both main and alternate, to be used for ongoing relative accuracy test audits;

(3) the rationale for the minimum acceptable data collection period for the size of the sorbent trap selected;

(4) procedures used to monitor system integrity and data quality;

(5) a description of calculations used to convert mercury concentration values to the appropriate units of the emission standard;

(6) procedures for inscribing or permanently marking a unique identification number on each sorbent trap for tracking purposes. A record system must be developed to track the identification of the monitoring system along with dates and hours for each collection period; and

(7) procedures for providing substituted data in the event that monitors are not available to measure mercury emissions and data is missing from the monitoring record.

C. The continuous monitor must be operated in compliance with parts 7017.0100, 7017.1002, 7017.1030, 7017.1080 to 7017.1130, 7017.1150, and 7017.1180.

D. Owners or operators must conduct routine quality assurance and control tests on a frequency as follows:

(1) relative accuracy test audits are required annually, meaning once every four quality-assured operating quarters. This deadline may be extended for non-quality-assured operating quarters up to a maximum of eight quarters from the quarter of the previous test; and

(2) a 720 continuous-hour grace period is allowed for relative accuracy test audits.

E. Measurement or adjustment of continuous monitor mercury data for bias is not required.

F. Monitoring systems that are used to measure stack gas volumetric flow rate, diluent gas concentration, or stack gas moisture content, either for routine operation of a sorbent trap monitoring system or to convert mercury concentration data to units of the applicable emission limit, must be certified according to the applicable provisions of Code of Federal Regulations, title 40, part 75.

G. The owners or operators must determine the mercury concentration for each data collection period and assign this concentration value to each operating hour in the data collection period.

H. The owners or operators must convert hourly emissions concentrations to 30 boiler operating day rolling average (lb/Tbtu) according to appropriate emission rate equations of Code of Federal Regulations, title 40, part 60, Appendix A-7, Method 19.

I. Using fuel sampling data generated by the procedures in subpart 8, the owners or operators must demonstrate that the output from item H meets the limits specified in subpart 4.

J. The first 30 days of the monitoring period is the first period used to determine compliance with the mercury emissions concentration limit.

Subp. 8. **Procedures for determining mercury content of fuel.** When the mercury content of fuel is needed to determine total mercury emission reductions, owners or operators of a coal-fired EGU must use the fuel sampling and measuring fuel content procedures in items A to E. The mercury content of fuel used for start-up, unit shutdown, or transient flame stability does not need to be measured. The owners or operators must:

A. collect samples of each fuel using ASTM D2234/D2234M;

B. prepare a composited sample for each fuel type using ASTM D2013/D2013M;

C. determine the heat content of the fuel using ASTM D5865;

D. determine the moisture content of the fuel using ASTM D3173; and

E. measure mercury in the fuel sample using ASTM D6722-11, or SW-846-7471 for solid samples, and report in terms of lb/ton of fuel burned.

Subp. 9. **Demonstrating applicability of mercury control requirements.** The owners or operators of a coal-fired EGU must conduct a 28 to 30 operating day performance test, using Code of Federal Regulations, title 40, part 60, Appendix A-8, Method 30B, to determine the mercury concentration according to this subpart. The test must be completed within one year of the effective date of this part. The owner or operator must:

A. conduct performance tests according to parts 7017.2001 to 7017.2060. When preparing the test plan required in part 7017.2030, the owner or operator must identify parametric data for air pollution control devices in place during the performance test that will be recorded;

B. use Code of Federal Regulations, title 40, part 60, Appendix A-8, Method 30B, or a substantially similar alternative method approved by the commissioner;

C. locate the Method 30B sampling probe tip at a point within the ten percent centroidal area of the duct at a location selected according to Method 1 in Code of Federal Regulations, title 40, part 60, Appendix A-1, and conduct at least three nominally equal length test runs over the 28- to 30-day test period. Test runs may not be longer than ten days;

D. collect diluents gas data over the corresponding time period using Code of Federal Regulations, title 40, part 60, Appendix A-2, Method 3A, or a diluent gas monitor certified according to Code of Federal Regulations, title 40, part 75;

E. for calculation of pounds per year of mercury, collect:

(1) stack gas flow rate using Method 2, 2F, or 2G in Code of Federal Regulations, title 40, part 60, Appendix A-1 or A-2, or a flow rate monitor that has been certified according to Code of Federal Regulations, title 40, part 75; and

(2) moisture data using Method 4 in Code of Federal Regulations, title 40, part 60, Appendix A-3, or a moisture monitor certified according to Code of Federal Regulations, title 40, part 75;

F. calculate the average mercury concentration, in micrograms per cubic meter ($\mu g/m^3$), for the 28- to 30-day performance test, as the arithmetic average of all sorbent trap results. The owner or operator must calculate the average CO_2 or O_2 concentration for the test period. The owner or operator must use the average mercury concentration and diluents gas values to express the performance test results in units of pounds of mercury per trillion British thermal units (lb/Tbtu) and actual pounds of mercury emitted per year, using the expected fuel input over a one-year period. Alternatively, the owner or operator must calculate pounds of mercury emitted per year using the average mercury concentration, average stack gas flow rate, average stack gas moisture, and maximum operating hours per year;

G. record parametric data for air pollution control devices in place during the performance test. If the calculation in item F demonstrates that the EGU emits less than five pounds per year of mercury, the owner or operator must operate air pollution control equipment at the rates exhibited during the performance test; and

H. repeat the performance test once every five years to demonstrate that the mercury emissions from the EGU remain below five pounds per year.

Subp. 10. **Incorporations by reference.** For purposes of this part, the methods listed in items A and B are incorporated by reference, as amended. These documents are subject to frequent change.

A. The Annual Book of American Society for Testing and Materials International (ASTM) methods D2234/D2234M (Standard Practice for Collection of a Gross Sample of Coal), D2013/D2013M (Standard Practice for Preparing Coal Samples for Analysis), D5865 (Standard Test Method for Gross Calorific Value of Coal and Coke), D3173 (Standard Test Method for Moisture in the Analysis Sample of Coal and Coke), and D6722 (Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by Direct Combustion Analysis). These methods are published in the Annual Book of ASTM Standards; Volume 05.06 Gaseous Fuels; Coal and Coke, 2012 edition. These documents are available through the Minitex interlibrary loan system.

B. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA SW-846, Third Edition, November 1986, issued by the United States Environmental Protection Agency (EPA). Method 7471 Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique) is available electronically from the Environmental Protection Agency and through the Minitex interlibrary loan system.

7011.0563 INCORPORATION OF EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FROM COAL- AND OIL-FIRED ELECTRIC UTILITY STEAM GENERATORS.

Code of Federal Regulations, title 40, part 63, subpart UUUUU, as amended, entitled "National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units" is incorporated by reference, except that the authorities identified in Code of Federal Regulations, section 63.10041(b), are not delegated to the commissioner and are retained by the administrator.

7011.1201 DEFINITIONS.

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

Subp. 12. [See repealer.]

Subp. 13. **Class I waste combustor.** "Class I waste combustor" means that the design capacity for a waste combustor unit is 93.75 x 10^6 Btu/hr or more, ~~and that~~ the waste combustor unit burns mixed municipal solid waste, and construction of the unit is commenced after September 20, 1994, or modification or reconstruction is commenced after June 19, 1996.

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, the waste combustor unit burns mixed municipal solid waste, and ~~that~~ construction of the unit is commenced after September 20, 1994, or modification or reconstruction is commenced after June 19, 1996.

Subp. 15. **Class III waste combustor.** "Class III waste combustor" means that the 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 unit burns mixed municipal solid waste or medical waste, and the waste combustor is issued a permit for construction after December 20, 1989.

[For text of subp 16, see M.R.]

Subp. 16a. **Commercial or industrial solid waste incinerator.** "Commercial or industrial solid waste incinerator" means any distinct operating unit at a commercial or industrial solid waste facility that combusts, or has combusted in the preceding six months, any solid waste as defined in Code of Federal Regulations, title 40, part 241.

[For text of subps 17 to 43a, see M.R.]

Subp. 43b. **Resinated wood.** "Resinated wood" has the meaning given in Code of Federal Regulations, title 40, section 241.2.

[For text of subps 44 to 45a, see M.R.]

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 wood, or at least 70 percent fossil fuel and wood in combination with up to 30 percent~~ resinated wood or dewatered 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.

[For text of subps 47 to 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, and~~ to 3.

Subp. 2. **Cofired facilities.** A person who constructs, modifies, reconstructs, or operates a cofired unit is not a waste combustor~~, and shall comply with the applicable requirements of parts 7011.0500 to 7011.0551 or 7011.0600 to 7011.0625~~ under parts 7011.1201 to 7011.1285.

[For text of subps 2a and 2b, see M.R.]

Subp. 2c. **Commercial and industrial solid waste incinerators.** A person who constructs, modifies, or reconstructs a waste combustor such that it becomes a commercial or industrial solid waste incinerator is not subject to parts 7011.1225 to 7011.1285 and shall comply with parts 7011.1360 to 7011.1370.

[For text of subp 3, see M.R.]

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 subps 5 and 5a, see M.R.]

Subp. 6. [See repealer.]

7011.1291 INCORPORATION BY REFERENCE OF NEW SOURCE PERFORMANCE STANDARD FOR NEW LARGE MUNICIPAL WASTE COMBUSTORS.

Subpart 1. **Incorporation by reference.** Code of Federal Regulations, title 40, part 60, subpart Eb, as amended, entitled "Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996" is incorporated by reference, except that decisions made by the administrator under Code of

Federal Regulations, title 40, section 60.50b(n), are not delegated to the commissioner and must be made by the administrator.

Subp. 2. **Exceedance of emission limits.** Owners and operators of a new large municipal waste combustor must comply with part 7011.1340.

7011.1292 INCORPORATION BY REFERENCE OF NEW SOURCE PERFORMANCE STANDARD FOR NEW HOSPITAL/MEDICAL/INFECTIOUS WASTE INCINERATORS.

Subpart 1. **Incorporation by reference.** Code of Federal Regulations, title 40, part 60, subpart Ec, as amended, entitled "Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996" is incorporated by reference, except that decisions made by the administrator under Code of Federal Regulations, title 40, section 60.50c(i), are not delegated to the commissioner and must be made by the administrator.

Subp. 2. **Exceedance of emission limits.** Owners and operators of a new hospital/medical/infectious waste incinerator must comply with part 7011.1340.

7011.1293 INCORPORATION BY REFERENCE OF NEW SOURCE PERFORMANCE STANDARD FOR NEW SMALL MUNICIPAL WASTE COMBUSTORS.

Subpart 1. **Incorporation by reference.** 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 incorporated by reference.

Subp. 2. **Exceedance of emission limits.** Owners and operators of a new small municipal waste combustor must comply with part 7011.1340.

7011.1294 INCORPORATION BY REFERENCE OF NEW SOURCE PERFORMANCE STANDARD FOR NEW OTHER SOLID WASTE INCINERATION UNITS.

Subpart 1. **Incorporation by reference.** Code of Federal Regulations, title 40, part 60, subpart EEEE, as amended, entitled "Standards of Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006" is incorporated by reference, except that decisions made by the administrator under Code of Federal Regulations, title 40, section 60.2889(b), are not delegated to the commissioner and must be made by the administrator.

Subp. 2. **Exceedance of emission limits.** Owners and operators of a new other solid waste incineration unit must comply with part 7011.1340.

7011.1340 EMISSION LIMITS EXCEEDANCE REQUIREMENTS.

Subpart 1. **Applicability.** The owners or operators of an emissions unit subject to parts 7011.1350, 7011.1355, 7011.1360, and 7011.1370 must comply with this part.

Subp. 2. **Definitions.** The terms used in this part have the meanings given them in this subpart.

A. "Accurate and valid data" means data that provides the measurement of emissions of an air contaminant from the incinerator or of operating parameters of a component of the incinerator. For continuously monitored emissions, data is accurate and valid immediately upon recording. For emissions for which a performance test is conducted, data is accurate and valid 14 days after the incinerator owners or operators receive the performance test report, unless the incinerator owners or operators notify the commissioner in writing within the same 14 days that the owners or operators can show reason for rejecting the data.

B. "Normal start-up" means the period of time between the initial start-up of a new, modified, retrofitted, or reconstructed emissions unit of an incinerator or an emissions unit of an incinerator that is modified, retrofitted, or reconstructed to meet the requirements of parts 7011.1360 to 7011.1370 and the lesser of 60 days after achieving the maximum production rate at which the emissions unit will operate or 180 days after initial start-up.

Subp. 3. **Exceedance of continuously monitored emission limits.** If, after normal start-up, accurate and valid data results collected from continuous emission monitors exceed emission limits established in part 7011.1350, item B; 7011.1355, subpart 2; 7011.1365; or 7011.1370, subpart 1, or in the permit for the incinerator, the incinerator owner or operator must:

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

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

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

D. when repairs or modifications have been completed, demonstrate to the commissioner that the incinerator is in compliance. 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 before resuming operation. Compliance is demonstrated by providing to the commissioner written results from the continuous monitor showing compliance with the emission limits.

Subp. 4. **Exceedance of emission limits determined through performance testing.**

A. If, after normal start-up, accurate and valid data results of a performance test demonstrate an exceedance of an emissions limit established in part 7011.1355, subpart 2;

7011.1365; or 7011.1370, subpart 1, or in the facility air emissions permit, the owners or operators of an incinerator must:

(1) report the exceedance to the commissioner according to part 7019.1000;

(2) undertake appropriate steps to return the incinerator to compliance and demonstrate compliance within 60 days of the initial report to the commissioner of the exceedance; and

(3) shut down the incinerator if the commissioner determines that compliance has not been achieved within 60 days of the initial report of exceedance.

B. If shutdown was required under item A, subitem (3), the owner or operator may restart the incinerator under the conditions specified by the commissioner. The owners or operators must notify the commissioner in writing of the date on which the owners or operators plan to start up and to begin compliance testing. Notification must be received at least ten days in advance of the compliance test date.

7011.1350 INCORPORATION BY REFERENCE OF NEW SOURCE PERFORMANCE STANDARD ~~BY REFERENCE~~ FOR SEWAGE SLUDGE INCINERATORS.

Subpart 1. **Incorporation by reference.** The following new source performance standards are incorporated by reference:

A. Code of Federal Regulations, title 40, part 60, subpart O, as amended, entitled "Standards of Performance for Sewage Treatment Plants," is ~~adopted and~~ incorporated by reference, except that decisions made by the administrator under Code of Federal Regulations, title 40, section 60.153(e), are not delegated to the commissioner and must be made by the administrator.

B. Code of Federal Regulations, title 40, part 60, subpart LLLL, as amended, entitled "Standards of Performance for New Sewage Sludge Incineration Units" is incorporated by reference, except that decisions made by the administrator under Code of

Federal Regulations, title 40, section 60.4785(c), are not delegated to the commissioner and must be made by the administrator.

Subp. 2. **Exceedance of emission limits.** Owners and operators of a new sewage sludge incineration unit must comply with part 7011.1340.

7011.1355 STANDARDS OF PERFORMANCE FOR EXISTING SEWAGE SLUDGE COMBUSTION FACILITIES; COMPLIANCE WITH CLEAN AIR ACT SECTION 129 STANDARDS.

Subpart 1. **Applicability.** The owners or operators of each sewage sludge incineration unit as defined in Code of Federal Regulations, title 40, section 60.5250, for which construction commenced on or before October 14, 2010, must comply with this part, except:

A. combustion units that incinerate sewage sludge, as defined under Code of Federal Regulations, title 40, section 60.5250, and are not located at a wastewater treatment facility designed to treat domestic sewage sludge are exempt from this part. The owners or operators of the combustion unit must notify the United States Environmental Protection Agency and the commissioner of an exemption claim under this item;

B. if the owners or operators of a sewage sludge incineration unit make changes that meet the definition of modification incorporated in subpart 2 after September 21, 2011:

(1) the sewage sludge incineration unit becomes subject to Code of Federal Regulations, title 40, part 60, subpart LLLL; and

(2) this part no longer applies to the sewage sludge incineration unit; and

C. physical or operational changes made to a sewage sludge incineration unit for which construction commenced on or before September 21, 2011, primarily to comply with this part:

(1) are not considered modifications or reconstructions; and

(2) do not result in a sewage sludge incineration unit becoming subject to Code of Federal Regulations, title 40, part 60, subpart LLLL.

Subp. 2. **Incorporation of federal performance standards for existing sewage sludge incinerators.**

A. The following requirements from Code of Federal Regulations, title 40, part 60, subpart MMMM, Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units, are incorporated by reference, as amended:

(1) increments of progress: Code of Federal Regulations, title 40, sections 60.5085 to 60.5125. The deadlines for each increment of progress are found in Table 1 of Code of Federal Regulations, title 40, part 60, subpart MMMM, and are as follows:

(a) owners or operators must submit the final control plan to the commissioner by one year after the effective date of this part; and

(b) owners or operators of an affected unit must demonstrate compliance with the emission guidelines adopted under this part within three years after the effective date of this part;

(2) operator training and qualification: Code of Federal Regulations, title 40, sections 60.5130 to 60.5160;

(3) emission limits, emission standards, and operating limits and requirements: Code of Federal Regulations, title 40, sections 60.5165 to 60.5181;

(4) initial compliance requirements: Code of Federal Regulations, title 40, sections 60.5185 to 60.5200;

(5) continuous compliance requirements: Code of Federal Regulations, title 40, sections 60.5205 to 60.5215;

(6) performance testing, monitoring, and calibration requirements: Code of Federal Regulations, title 40, sections 60.5220 to 60.5225;

(7) record keeping and reporting: Code of Federal Regulations, title 40, sections 60.5230 to 60.5235; and

(8) definitions: Code of Federal Regulations, title 40, section 60.5250.

B. For purposes of this subpart, the terms used in Code of Federal Regulations, title 40, sections 60.5085 to 60.5250, are defined as follows:

(1) "administrator" means the commissioner; and

(2) "you" means the owner or operator of an affected sewage sludge incineration unit.

Subp. 3. **Exceedance of emission limits.** Owners and operators of an existing sewage sludge incinerator must comply with part 7011.1340.

COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATORS

7011.1360 EXISTING COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATORS COMPLIANCE REQUIREMENTS.

Subpart 1. **Applicability.** Except as provided in items A to H, the owners or operators of a commercial or industrial solid waste incineration unit as defined in Code of Federal Regulations, title 40, section 60.2875, that commenced construction on or before June 4, 2010, must comply with this part and part 7011.1365. The following units are not commercial and industrial solid waste incineration units:

A. pathological waste units;

B. units subject to Code of Federal Regulations, title 40, part 60, subparts Ea, Eb, Cb, AAAA, and BBBB, standards of performance for existing or new municipal waste combustors or a federal plan for medical waste incinerators;

C. units subject to Code of Federal Regulations, title 40, part 60, subpart Ec or Ce, standards of performance for existing or new medical waste incinerators or a federal plan for medical waste incinerators;

D. small power production units, if:

(1) the unit is a qualifying small power production facility under section 3(17)(C) of the Federal Power Act, United States Code, title 16, section 796(17)(C);

(2) the unit burns homogeneous wastes, not including refuse-derived fuel, to produce electricity; and

(3) the commissioner approves a determination that the qualifying small power production facility is combusting homogeneous wastes, as defined in Code of Federal Regulations, title 40, section 60.2875. The request for a determination must include sufficient information to document that the unit meets the criteria of a qualifying small power production facility and that the waste material the unit is proposing to burn is homogeneous;

E. cogeneration facility units, if:

(1) the unit is a qualifying cogeneration facility under section 3(18)(B) of the Federal Power Act, United States Code, title 16, section 796(18)(B);

(2) the unit burns homogeneous waste, not including refuse-derived fuel, to produce electricity and steam or other forms of energy used for industrial solid waste, commercial, heating, or cooling purposes; and

(3) the commissioner approves a determination that the qualifying cogeneration facility is combusting homogeneous waste, as defined in Code of Federal Regulations, title 40, section 60.2875. The request for a determination must include sufficient information to document that the unit meets the criteria of a qualifying cogeneration facility and that the waste material the unit is proposing to burn is homogeneous;

F. units that are required to obtain a permit under section 3005 of the Solid Waste Disposal Act, United States Code, title 42, section 6925;

G. units that combust waste for the primary purpose of recovering metals, such as primary and secondary smelters; and

H. air curtain incinerators, as defined under Code of Federal Regulations, title 40, section 60.2875, provided that the incinerators burn only 100 percent wood waste, 100 percent clean lumber, or 100 percent mixture of clean lumber, wood waste, or yard waste.

Subp. 2. **Compliance deadline.** The owners or operators of a commercial or industrial solid waste incinerator shall demonstrate compliance with part 7011.1365 no later than March 16, 2016, or three years after the United States Environmental Protection Agency approves a 111(d) plan incorporating this part, whichever is earlier. Commercial and industrial solid waste incinerators operating on the effective date of this part shall submit a control plan to the commissioner within 180 days after the effective date of this part.

Subp. 3. **Modifications.** If the owners or operators of a commercial or industrial solid waste incineration unit make changes after September 21, 2011, that meet the definition of modification in Code of Federal Regulations, title 40, section 60.2875:

A. the commercial or industrial solid waste incineration unit becomes subject to part 7011.1370; and

B. this part no longer applies to the commercial or industrial solid waste incineration unit.

Subp. 4. **Physical or operational changes.** Physical or operational changes made by owners or operators to a commercial or industrial solid waste incineration unit for which construction commenced on or before June 4, 2010, to comply with this part:

A. are not considered modifications or reconstructions; and

B. do not result in a commercial or industrial solid waste incineration unit becoming subject to part 7011.1370.

Subp. 5. **Exceedance of emission limits.** Owners and operators of a commercial or industrial solid waste incineration unit must comply with part 7011.1340.

7011.1365 INCORPORATION BY REFERENCE OF STANDARDS OF PERFORMANCE FOR EXISTING COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATORS.

A. The following requirements from Code of Federal Regulations, title 40, subpart DDDD, sections 60.2575 to 60.2875, as amended, entitled "Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units That Commenced Construction On or Before November 30, 1999" are incorporated by reference, as amended:

(1) increments of progress: Code of Federal Regulations, title 40, sections 60.2575 to 60.2615. The deadlines for each increment of progress are found in Table 1 of Code of Federal Regulations, title 40, part 60, subpart DDDD, and are as follows:

(a) owners or operators must submit a final control plan to the commissioner by one year after the effective date of this part; and

(b) owners or operators of an affected unit must demonstrate compliance with the emission guidelines adopted under this part within three years after the effective date of this part;

(2) waste management plan: Code of Federal Regulations, title 40, sections 60.2620 to 60.2630;

(3) operator training and qualification: Code of Federal Regulations, title 40, sections 60.2635 to 60.2665;

(4) emission limitations and operating limits: Code of Federal Regulations, title 40, sections 60.2670 to 60.2685;

(5) performance testing: Code of Federal Regulations, title 40, sections 60.2690 to 60.2695;

(6) initial compliance requirements: Code of Federal Regulations, title 40, sections 60.2700 to 60.2706;

(7) continuous compliance requirements: Code of Federal Regulations, title 40, sections 60.2710 to 60.2725;

(8) monitoring: Code of Federal Regulations, title 40, sections 60.2730 to 60.2735;

(9) record keeping and reporting: Code of Federal Regulations, title 40, sections 60.2740 to 60.2800;

(10) Title V operating permits: Code of Federal Regulations, title 40, section 60.2805. Owners or operators of commercial and industrial solid waste incineration units that do not hold Title V operating permits must submit an application for a Title V permit by one year after the effective date of this part;

(11) air curtain incinerators: Code of Federal Regulations, title 40, sections 60.2810 to 60.2870; and

(12) definitions: Code of Federal Regulations, title 40, section 60.2875.

B. For the purposes of this subpart, the terms used in Code of Federal Regulations, title 40, sections 60.2572 to 60.2875, are defined as follows:

(1) "administrator" means the commissioner; and

(2) "you" means the owner or operator of an affected commercial and industrial solid waste incineration unit.

7011.1370 INCORPORATION BY REFERENCE OF NEW SOURCE PERFORMANCE STANDARD FOR NEW COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATORS.

Subpart 1. **Incorporation by reference.** Code of Federal Regulations, title 40, part 60, subpart CCCC, 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 incorporated by reference, except that decisions made by the administrator under Code of Federal Regulations, title 40, section 60.2030(c) are not delegated to the commissioner and must be made by the administrator.

Subp. 2. **Exceedance of emission limits.** Owners and operators of a new commercial or industrial solid waste incinerator must comply with part 7011.1340.

7011.7050 INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS AND PROCESS HEATERS; MAJOR SOURCES.

Code of Federal Regulations, title 40, part 63, subpart DDDDD, as amended, entitled "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters," is incorporated by reference, except that the authorities identified in Code of Federal Regulations, title 40, section 63.313(d), are not delegated to the commissioner and are retained by the administrator.

7011.7055 INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS; AREA SOURCES.

Code of Federal Regulations, title 40, part 63, subpart JJJJJJ, as amended, entitled "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources," is incorporated by reference, except that the authorities identified in Code of Federal Regulations, title 40, section 63.11236(c), are not delegated to the commissioner and are retained by the administrator.

7019.3000 EMISSION INVENTORY.

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

Subp. 3. **Mercury emission sources.** Owners or operators of a mercury emission source as defined in part 7005.0100, subpart 23b, must submit an annual emission inventory report of the mercury emissions to the commissioner in a format specified by the

commissioner. The report must be submitted on or before April 1 of the year following the year being reported. Owners or operators of stationary sources that have air emissions of mercury but that are not mercury emission sources must report every three years.

Subp. 4. **Possible mercury emission sources.** If the commissioner determines that a stationary source has activity levels or emission factors that indicate that the source may be a mercury emission source, the commissioner may request that the owners or operators quantify the source's mercury emissions using the methods listed in part 7019.3030, item A. The owners or operators must complete the quantification and submit a report to the commissioner within 120 days of the commissioner's request.

7019.3020 CALCULATION OF ACTUAL EMISSIONS FOR EMISSION INVENTORY.

[For text of items A to E, see M.R.]

F. All owners or operators of an emission reporting facility submitting an emission inventory based in whole, or in part, on a material balance calculation shall submit a sample material balance calculation with the emission inventory. Such facilities shall also maintain a record of the material safety data sheets or vendor certification of the VOC, mercury, or sulfur content of the material for each material or fuel used and the material balance calculations for a period of five years after the date of submittal of the emission inventory.

[For text of item G, see M.R.]

7019.3050 PERFORMANCE TEST DATA.

A. If an emission reporting facility or mercury emission source as defined in part 7005.0100, subpart 23b, has collected representative emission data through the use of performance tests in compliance with the preconditions in items B and C, and if CEM data under part 7019.3040 is not available, the facility shall calculate its emissions based on performance tests. If the emission data is unrepresentative because fuel or material feed

used under the test conditions is substantially different than the conditions under which the emissions unit is normally operated or because the emissions unit has been modified, the facility shall calculate its emissions based on the next highest available method. Emissions unit operating load variation from test load does not make the data unrepresentative. In the event that the facility has collected emission data through the use of performance tests and determines that the data is unrepresentative for any reason, the facility shall submit an explanation of why the data is unrepresentative with the emissions calculated using the next highest available method. The commissioner shall determine if the conditions of the performance test were representative based upon the operating data supplied by the facility for the year of the inventory.

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

D. If the most recently conducted performance test data is more than ten years older than the last date of the emission inventory period, then the emission factor derived from the performance test shall be used if it results in higher calculated emissions than any default emission factor allowed under part 7019.3060, 7019.3070, or 7019.3080, as applicable, unless an alternative factor is approved by the commissioner under part 7019.3100 (facility proposal) or unless continuous emission monitor data that satisfies the conditions of part 7019.3040 is available. The performance test data must be representative of operating conditions during the calendar year for which the emission inventory is being submitted. Mercury emission sources, as defined in part 7005.0100, subpart 23b, must follow the testing schedule in item E.

E. Unless a mercury emission source, as defined in part 7005.0100, subpart 23b, is already subject to a compliance demonstration for mercury under another applicable requirement, operating permit, or enforceable agreement, the owners or operators of the source must test according to subitems (1) to (5):

(1) the owners or operators of a mercury emission source in operation on or before the effective date of this part must conduct an initial performance test for mercury emissions on the emission units and processes described in subitem (2):

(a) the owners or operators must submit the test report to the commissioner within 365 days of the effective date of this part; and

(b) the test must be conducted in compliance with parts 7017.2001 to 7017.2060;

(2) the emission units and processes to be tested are those for which prior testing conducted under chapter 7017, emission factors, or similar calculations indicate actual emissions are three or more pounds of mercury per year from each unit or process;

(3) the owners or operators of a mercury emission source that commences operation or makes a physical or operational change that results in an increase in the potential to emit mercury after the effective date of this part must conduct an initial performance test for mercury emissions within 180 days of initial start-up or on a schedule established in an air emission permit or other enforceable agreement and submit the test report to the commissioner. "Start-up" has the meaning given in part 7005.0100, subpart 42a. "Potential to emit" has the meaning given in part 7005.0100, subpart 35a;

(4) if a stationary source has mercury emissions from units or processes that are substantially equivalent, the results of testing from one may be applied to the others, scaled for throughput or operating hours. With the test results, the owners or operators must provide documentation that the units or processes are substantially equivalent; and

(5) after the initial test, the owners or operators must conduct subsequent performance tests within 60 months of each prior test:

(a) subsequent performance tests are not required if the owners or operators determine that the stationary source is no longer a mercury emission source as defined under part 7005.0100, subpart 23b; and

(b) if the stationary source becomes a mercury emission source again, the owners or operators must resume conducting subsequent performance tests according to this subitem within 180 days of making the determination that actual emissions exceed the threshold for a mercury emission source.

7019.3065 MERCURY MATERIAL BALANCE.

If an owner or operator does not have either a continuous emission monitor to monitor the facility's mercury emissions or a physical location at which to conduct a mercury emissions performance test and if inputs and outputs of mercury are known, the owner or operator of a mercury emission source may calculate mercury air emissions using the material balance method described in this part. A person using material balance to calculate mercury emissions must determine the total mercury air emissions (E) as follows:

E = (A - B - C) * (1 - CE)

Where:

A = the total amount of mercury entering the process. The amount of mercury used in this calculation must be the amount certified by the supplier, the maximum amount stated on a material safety data sheet, or the maximum amount determined by sample analysis using a reference method.

B = the sum of the amount of mercury incorporated into manufactured products. The owner or operator must submit an explanation of how this quantity was determined.

C = the sum of the amount of mercury leaving the process by a mechanism other than through controlled stack gases or in a product, as when material leaves the process as a waste, is recycled, or is approved for beneficial reuse. The mercury leaving the process by such a mechanism must be established by sample analysis using a reference method. If the actual mercury content of the mercury leaving the process is unknown, then C = 0.

CE = the overall efficiency, or the product of capture efficiency and control efficiency, of any air pollution control device used to capture or control mercury air emissions, expressed as a decimal fraction of 1.00. The overall efficiency must be based on efficiency factors, as defined in part 7005.0100, subpart 9b, or must be based on the overall efficiency verified by a performance test conducted according to parts 7017.2001 to 7017.2060.

REPEALER. Minnesota Rules, parts 7011.1201, subpart 12; 7011.1215, subpart 6; 7011.1225, subpart 4; and 7011.1290, are repealed.