**SUBCHAPTER D: DESIGNATED FACILITIES AND POLLUTANTS**
**DIVISION 1: MUNICIPAL SOLID WASTE LANDFILLS**
**§§113.2060, 113.2061, 113.2067, 113.2069**
**Effective October 29, 1998**

**§113.2060. Definitions.**

Unless specifically defined in the Texas Clean Air Act (TCAA) or in the rules of the Texas Natural Resource Conservation Commission (commission), the terms used in this division have the meanings commonly ascribed to them in the field of air pollution control. In addition to the terms which are defined in the TCAA, and in §101.1 of this title (relating to Definitions), the following words and terms, when used in this division shall have the following meanings, unless the context clearly indicates otherwise.

(1) **Construction -** Fabrication, erection, or installation of an affected municipal solid waste landfill (MSWLF).

(2) **Existing municipal solid waste landfill -** An MSWLF meeting the following conditions:

(A) The MSWLF has accepted waste on or after October 9, 1993, or has additional design capacity available for future waste deposition, regardless of whether that MSWLF is currently open or closed; and

(B) Construction, reconstruction, or modification of the MSWLF was commenced before May 30, 1991, (i.e., the MSWLF is not subject to the requirements of 40 Code of Federal Regulations (CFR) Part 60, Subpart WWW).

(3) **Fixed capital cost -** The capital needed to provide all the depreciable components.

(4) **Modification -** Any physical change in, or change in the method of operation of, an existing MSWLF which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that MSWLF or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted. For MSWLFs, the only physical or operational change that results in increased landfill emissions is an increase in the landfill design capacity. Design capacity of a landfill is increased only with the addition of new disposal areas. New disposal areas can result by increasing the depth of refuse deposition, or by constructing additional disposal cells. Physical or operational changes made to an existing MSWLF solely to comply with this subchapter are not considered a modification and would not subject an existing MSWLF to the requirements of 40 CFR Part 60, Subpart WWW.

(5) **Reconstruction** - The replacement of components of an existing MSWLF to such an extent that the fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new MSWLF, and it is technologically and economically feasible to meet the applicable standards set forth in this division. Physical or operational changes made

to an existing MSWLF solely to comply with this subchapter are not considered reconstruction and would not subject an existing MSWLF to the requirements of 40 CFR Part 60, Subpart WWW.

Adopted October 7, 1998 Effective October 29, 1998

**§113.2061. Standards for Air Emissions.**

(a) An owner or operator of an existing municipal solid waste landfill (MSWLF) shall comply with all provisions specified in 40 Code of Federal Regulations (CFR) Part 60, §§60.751-60.759 as promulgated on March 12, 1996, and amended on August 17, 1998. For purposes of this rule, the term "Administrator" wherever it appears in 40 CFR Part 60, §§60.751-60.759 shall refer to the commission.

(b) Gas collection and control systems approved by the commission and installed at an MSWLF in compliance with §115.152 of this title (relating to Control Requirements) satisfy the gas collection and control system design requirements of this section.

Adopted October 7, 1998 Effective October 29, 1998

**§113.2067. Exemptions.**

A municipal solid waste landfill (MSWLF) may apply for less stringent emission standards or longer compliance schedules than those otherwise required by this division, provided that the owner or operator demonstrates to the executive director and EPA, the following:

(1) unreasonable cost of control resulting from MSWLF age, location, or basic MSWLF design;

(2) physical impossibility of installing necessary control equipment; or

(3) other factors specific to the MSWLF that make application of a less stringent standard or final compliance time significantly more reasonable.

Adopted October 7, 1998 Effective October 29, 1998

**§113.2069. Compliance Schedule.**

(a) An owner or operator subject to the requirements of this division shall submit the initial design capacity report in accordance with 40 Code of Federal Regulations (CFR) Part 60, §60.757(a)(2) to the executive director within 90 days from the date the commission publishes notification in the *Texas Register* that the United States Environmental Protection Agency (EPA) has approved this rule.

(b) An owner or operator of a municipal solid waste landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters and subject to the requirements of this division shall also submit the initial non-methane organic compound emission rate report in accordance

with 40 CFR §60.757(b)(2) to the executive director within 90 days from the date the commission publishes notification in the *Texas Register* that EPA has approved this rule.

Adopted October 7, 1998 Effective October 29, 1998

## DIVISION 2. HOSPITAL/MEDICAL/INFECTIOUS WASTE INCINERATORS
## §§113.2070 - 113.2072, 113.2074 - 113.2079
## Effective June 11, 2000

### §113.2070. Definitions.

Unless specifically defined in the TCAA or in the rules of the commission, the terms used in this division have the meanings commonly ascribed to them in the field of air pollution control. In addition to the terms which are defined in the TCAA, §3.2 of this title (relating to Definitions), §101.1 of this title (relating to Definitions), and §113.1 of this title (relating to Definitions), the following words and terms, when used in this division, shall have the following meanings, unless the context clearly indicates otherwise.

**(1) Biologicals** - Preparations made from living organisms and their products, including vaccines, cultures, etc., intended for use in diagnosing, immunizing, or treating humans or animals or in research pertaining thereto.

**(2) Blood products** - Any product derived from human blood including, but not limited to, blood plasma, platelets, red or white blood corpuscles, and other derived licensed products, such as interferon, etc.

**(3) Body fluids** - Liquid emanating or derived from humans and limited to blood, dialysate, amniotic, cerebrospinal, synovial, pleural, peritoneal and pericardial fluids; and semen and vaginal secretions.

**(4) Bypass stack** - A device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

**(5) Chemotherapeutic waste** - Waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

**(6) Co-fired combustor/incinerator** - A unit combusting hospital waste and/or medical/infectious waste with other fuels or wastes (e.g., coal, municipal solid waste) and subject to an enforceable requirement limiting the unit to combusting a fuel feed stream, 10% or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar quarter basis. For the purposes of this definition, pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered "other" wastes when calculating the percentage of hospital waste and medical/infectious waste combusted.

**(7) Commercial medical waste incinerator** - A facility that accepts for incineration medical waste generated outside the property boundaries of the facility.

**(8) Dioxins/furans** - The combined emissions of tetra- through octa-chlorinated dibenzi-para-dioxins and dibenzofurans, as measured by EPA Reference Method 23.

**(9) Dry scrubber** - An add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gases in the incinerator exhaust stream forming a dry powder material.

**(10) Fabric filter (or baghouse)** - An add-on air pollution control system that removes particulate matter and non-vaporous metals emissions by passing flue gas through filter bags.

**(11) Facilities manager** - The individual in charge of purchasing, maintaining, and operating the hospital/medical/infectious waste incinerator (HMIWI) or the owner/operator's representative responsible for the management of the HMIWI. Alternative titles may include director of facilities or vice president of support services.

**(12) Good combustion practices** - The minimum residence time and temperature in the secondary chamber as determined by the design of the incinerator, as well as the quantity and composition of the wastes incinerated, such that the incinerator can meet the emissions limits specified in §113.2072 of this title (relating to Emission Limits).

**(13) High-air phase** - The stage of the batch operating cycle when the primary chamber reaches and maintains maximum operating temperatures.

**(14) Hospital** - Any facility which has an organized medical staff, maintains at least six inpatient beds, and where the primary function of the institution is to provide diagnostic and therapeutic patient services and continuous nursing care primarily to human inpatients who are not related and who stay on average in excess of 24 hours per admission. This definition does not include facilities maintained for the sole purpose of providing nursing or convalescent care to human patients who generally are not acutely ill, but who require continuing medical supervision.

**(15) Hospital/medical/infectious waste incinerator (HMIWI) or HMIWI unit** - Any device that combusts any amount of hospital waste and/or medical/infectious waste.

**(A) Batch HMIWI** - An HMIWI unit that is designed such that neither waste charging nor ash removal can occur during combustion.

**(B) Continuous HMIWI** - An HMIWI unit that is designed to allow waste charging and ash removal during combustion.

**(C) Intermittent HMIWI** - An HMIWI unit that is designed to allow waste charging, but not ash removal, during combustion.

**(D) Large HMIWI** - An HMIWI unit which has a maximum design waste combustor capacity that is greater than 500 pounds per hour (lb/hr), or a continuous or intermittent HMIWI unit which has a maximum charge rate that is greater than 500 lb/hr, or a batch HMIWI unit which has a maximum charge rate that is greater than 4,000 pounds per day.

**(E) Medium HMIWI** - An HMIWI unit which has a maximum design waste combustor capacity that is greater than 200 lb/hr but less than or equal to 500 lb/hr, or a continuous or intermittent HMIWI unit which has a maximum charge rate that is greater than 200 lb/hr but less than or equal to 500 lb/hr, or a batch HMIWI unit which has a maximum charge rate that is greater than 1,600 pounds per day but less than or equal to 4,000 pounds per day.

**(F) Small HMIWI** - An HMIWI unit which has a maximum design waste combustor capacity that is less than or equal to 200 lb/hr, or a continuous or intermittent HMIWI unit which has a maximum charge rate that is less than or equal to 200 lb/hr, or a batch HMIWI unit which has a maximum charge rate that is less than or equal to 1,600 pounds per day.

**(G) Small-remote HMIWI** - A small HMIWI unit which is located more than 50 miles from the boundary of the nearest Standard Metropolitan Statistical Area (as defined in Office of Management and Budget Bulletin Number 93-17 entitled "Revised Statistical Definitions for Metropolitan Areas" dated June 30, 1993), and burns less than 2,000 pounds of waste per week.

**(16) Hospital waste** - Discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.

**(17) Infectious agent** - Any organism (such as a virus or bacteria) that is capable of being communicated by invasion and multiplication in body tissues and capable of causing diseases or adverse health impacts in humans.

**(18) Low-level radioactive waste** - Waste material which contains radionuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable federal or state standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or by-product material as defined by the Atomic Energy Act of 1954 (42 United States Code, §2014(e)(2)).

**(19) Malfunction** - Any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions. During periods of malfunction the operator shall operate within established parameters as much as possible, and monitoring of all applicable operating parameters shall continue until all waste has been combusted or until the malfunction ceases, whichever comes first.

**(20) Maximum charge rate** - For continuous and intermittent incinerators, 110% of the lowest three-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits; and for batch incinerators, 110% of the lowest daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

**(21) Maximum design waste burning capacity** -

(A) for intermittent and continuous incinerators,

$$C = \frac{Pv(15{,}000)}{8{,}500}$$

where:

C = incinerator capacity measured in pounds per hour (lb/hr)

$P_v$ = primary chamber volume measured in cubic feet ($ft^3$)

15,000 = primary chamber heat release rate factor measured in British thermal units per cubic foot per hour ($Btu/ft^3/hr$)

8,500 = standard waste heating value (Btu/lb)

(B) for batch incinerators,

where:

C = incinerator capacity measured in lb/hr

$P_v$ = primary chamber volume measured in $ft^3$

4.5 = waste density measured in $lb/ft^3$

8 = typical hours of operation measured in hours

**(22) Maximum fabric filter inlet temperature** - 110% of the lowest three-hour average temperature at the inlet to the fabric filter (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

**(23) Maximum flue gas temperature** - 110% of the lowest three-hour average temperature at the outlet from the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the mercury (Hg) emission limit.

**(24) Medical waste** - Waste generated by health-care-related facilities and associated with health-care activities, not including garbage or rubbish generated from offices, kitchens, or other non-health-care activities. The term includes special waste from health-care-related facilities which is comprised of animal waste, bulk blood and blood products, microbiological waste, pathological waste, and sharps as those terms are defined in 25 TAC §1.132 (relating to Definition, Treatment, and Disposition of Special Waste from Health-Care Related Facilities). The term does not include medical waste produced on farmland or ranchland as defined in Texas Agriculture Code, §252.001(6) (relating to Definitions - Farmland or Ranchland), nor does the term include artificial, nonhuman materials removed

from a patient and requested by the patient including, but not limited to, orthopedic devices and breast implants.

**(25) Medical/infectious waste** - Any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of the following biologicals:

(A) cultures and stocks of infectious agents and associated biologicals, including: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures;

(B) human pathological waste, including: tissues; organs; and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures; and specimens of body fluids and their containers;

(C) human blood and blood products, including: liquid waste human blood; products of blood; items saturated and/or dripping with human blood; or items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis, or the development of pharmaceuticals. Intravenous bags are also included in this category;

(D) sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including: hypodermic needles; syringes (with or without the attached needle); Pasteur pipettes; scalpel blades; blood vials; needles with attached tubing; and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as slides and cover slips;

(E) animal waste, including: contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals); production of biologicals; or testing of pharmaceuticals;

(F) isolation wastes, including: biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases;

(G) unused sharps, including the following unused, discarded sharps: hypodermic needles; suture needles; syringes; and scalpel blades; and

(H) does not include: hazardous waste identified or listed under the regulations in Title 40 Code of Federal Regulations Part 261 (40 CFR 261); household waste, as identified in 40 CFR 261.4(b)(1); ash from incineration of medical/infectious waste, once the incineration process has been

completed; human corpses, remains, and anatomical parts that are intended for interment or cremation; and domestic sewage materials identified in 40 CFR 261.4(a)(1).

**(26) Minimum sorbent flow rate** - 90% of the highest three-hour average sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the applicable (dioxin/furan, mercury, and hydrogen chloride) emission limit.

**(27) Minimum wet scrubber parameters** - 90% of the highest three-hour average scrubber parameter (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable emission limits. The parameters include:

(A) horsepower or amperage to the scrubber;

(B) pressure drop across the wet scrubber;

(C) liquid flow rate at the scrubber inlet; and

(D) liquid pH at the scrubber inlet.

**(28) Minimum secondary chamber temperature** - 90% of the highest three-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the particulate matter, carbon monoxide, or dioxin/furan emission limits.

**(29) Modification (or modified incinerator)** - Any change to an incinerator unit after the effective date of these standards such that:

(A) the cumulative costs of the modifications, over the life of the unit, exceed 50% of the original cost of the construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs; or

(B) the change involves a physical change in or change in the method of operation of the unit which increases the amount of any air pollutant emitted by the unit for which standards have been established under the FCAA, 42 United States Code, §7411 or §7429.

**(30) Operating day** - A 24-hour period between 12:00 a.m., midnight and the following midnight during which any amount of hospital waste or medical/infectious waste is combusted at any time in the incinerator.

**(31) Operation** - The period during which waste is combusted in the incinerator excluding periods of startup or shutdown.

**(32) Particulate matter** - The total particulate matter emitted from an incinerator as measured by EPA Reference Method 5, concerning Determination of Particulate Emissions from Stationary Sources

(40 CFR 60, Appendix A, 1999), or Reference Method 29, concerning Determination of Metals Emissions from Stationary Sources (40 CFR 60, Appendix A, 1999).

**(33) Pathological waste** - Waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

**(34) Primary chamber** - The chamber in an incinerator that receives waste material in which the waste is ignited and from which ash is removed.

**(35) Pyrolysis** - The endothermic gasification of hospital waste and/or medical/infectious waste using external energy.

**(36) Shutdown** - The period of time after all waste has been combusted in the primary chamber. For continuous incinerators, shutdown shall commence no less than two hours after the last charge to the incinerator. For intermittent incinerators, shutdown shall commence no less than four hours after the last charge to the incinerator. For batch incinerators, shutdown shall commence no less than five hours after the high-air phase of combustion has been completed.

**(37) Standard conditions** - A temperature of 68 degrees Fahrenheit (20 degrees Centigrade) and a pressure of 14.7 pounds per square inch (101.3 kilopascals).

**(38) Startup** - The period of time between the activation of the system and the first charge to the unit. For batch incinerators, startup is the period of time between activation of the system and ignition of the waste.

**(39) Toxic equivalent quantity (TEQ)** - For dioxins/furans, a TEQ basis=2,3,7,8-tetrachlorinated dibenzo-p-dioxin toxic equivalent based on the 1989 international toxic equivalency factors.

**(40) Wet scrubber** - An add-on air pollution control device that utilized an alkaline scrubbing liquor to collect particulate matter (including non-vaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

**§113.2071. Designated Facilities.**

(a) Except as specified in Table 1 of this subsection, the rules in this division apply to those designated facilities with existing hospital/medical/infectious waste incinerator (HMIWI) units for which construction was commenced on or before June 20, 1996.

Table 1. HMIWI Units Not Subject to Control Requirements.

| COMBUSTOR TYPE | SPECIAL REQUIREMENTS |
|---|---|
| Combustors during periods when burning | • Owner/Operator must perform |

| | |
|---|---|
| only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste, as defined in §113.2070. | notification and recordkeeping requirements specified in §113.2076(e). |
| Co-fired combustor, as defined in §113.2070. | • Hospital waste and medical/infectious waste (by weight) must be less than 10% of total waste burned on a calendar quarter basis.<br><br>• Owner/Operator must perform notification and recordkeeping requirements specified in §113.2076(f). |
| Any combustor required to have a permit under §3005 of the federal Solid Waste Disposal Act. | • None |
| Combustors which meet the applicability requirements under Title 40 Code of Federal Regulations Part 60 (40 CFR 60), Subparts Cb, Ea, or Eb (concerning Municipal Waste Combustors). | • None |
| Pyrolysis units, as defined in §113.2070. | • None |
| Cement kilns firing hospital waste and/or medical/infectious waste. | • None |

(b) Physical or operational changes made to an existing HMIWI unit solely for the purpose of complying with the requirements of this division are not considered a modification as defined in §113.2070(28) of this title (relating to Definitions) and do not result in an existing HMIWI unit becoming subject to the provisions of 40 Code of Federal Regulations 60, Subpart Ec (relating to Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced after June 20, 1996).

Adopted May 17, 2000 Effective June 11, 2000

**§113.2072. Emission Limits.**

(a) All affected hospital/medical/infectious waste incinerator (HMIWI) units burning of medical waste, as defined in §113.2070 of this title (relating to Definitions), shall meet the emission limits specified in Table 2 of this subsection. The emission limits under this section apply at all times except during periods of startup, shutdown, or malfunction, provided that no hospital waste or medical/infectious waste is charged to the affected facility during startup, shutdown, or malfunction.

Table 2. Emission Limits for Small, Medium, and Large HMIWI.

| Pollutant | Units (Corrected to 7% oxygen, dry basis according to the formula in §113.2075) | Emission Limits | | | |
|---|---|---|---|---|---|
| | | HMIWI Size | | | |
| | | Small | Small Remote | Medium | Large |
| Particulate Matter | milligrams per dscm[1] (grains per dscf[2]) | 115 (0.05) | 197 (0.086) | 69 (0.03) | 34 (0.015) |
| Carbon Monoxide | parts per million by volume | 40 | 40 | 40 | 40 |
| Dioxins/furans | nanograms per dscm total dioxins/furans (grains per billion dscf) or nanograms per dscm on a TEQ basis [3] (grains per billion dscf) | 125 (55) or 2.3 (1.0) | 800 (350) or 15 (6.6) | 125 (55) or 2.3 (1.0) | 125 (55) or 2.3 (1.0) |
| Hydrogen Chloride | parts per million by volume or percent reduction | 100 or 95% | 3100 | 100 or 95% | 100 or 95% |
| Sulfur Dioxide | parts per million by volume | 55 | 55 | 55 | 55 |
| Nitrogen Oxides | parts per million by volume | 250 | 250 | 250 | 250 |
| Lead | milligrams per dscm (grains per thousand dscf) or percent reduction | 1.2 (0.52) or 70% | 10 (4.4) | 1.2 (0.52) or 70% | 1.2 (0.52) or 70% |
| Cadmium | milligrams per dscm (grains per thousand dscf) or percent reduction | 0.16 (0.07) or 65% | 4 (1.7) | 0.16 (0.07) or 65% | 0.16 (0.07) or 65% |
| Mercury | milligrams per dscm (grains per thousand dscf) or percent reduction | 0.55 (0.24) or 85% | 7.5 (3.3) | 0.55 (0.24) or 85% | 0.55 (0.24) or 85% |

Footnotes:

[1] dscm = dry standard cubic meter

[2] dscf = dry standard cubic foot

[3] TEQ basis=2,3,7,8-tetrachlorinated dibenzo-p-dioxin toxic equivalent based on the 1989 international toxic equivalency factors. Dioxins/furans and oxygen content shall be measured at the same location.

(b) All affected HMIWI units burning hospital waste or medical/infectious waste, as defined in §113.2070 of this title, shall comply with the following operational requirements:

(1) be operated in accordance with good combustion practices as defined in §113.2070 of this title, and be equipped with a secondary chamber which retains all combustion gases for a minimum

period of time and at a minimum temperature measured at the exit of the secondary chamber and recorded continuously, as determined by a performance test conducted in accordance with §113.2075 of this title (relating to Compliance and Performance Testing Requirements);

(2) not exceed visible emissions of 5.0% opacity averaged over any six-minute period; and

(3) file an abbreviated federal operating permit application with the executive director.

Adopted May 17, 2000 Effective June 11, 2000

**§113.2074. Inspection Requirements.**

(a) Each small-remote hospital/medical/infectious waste incinerator (HMIWI) unit as defined in §113.2070 of this title (relating to Definitions) shall undergo an initial equipment inspection, followed by annual inspections. The initial inspection shall occur within one year following EPA approval of the state plan, and the annual inspection shall occur no later than 12 months after the previous equipment inspection and that is at least as protective as specified in Table 3 of this subsection.

Table 3. Initial and Annual Inspection Requirements.

| Items to be Inspected | Requirements |
|---|---|
| Burners, pilot assemblies, and pilot sensing devices | Inspect for proper operation; clean pilot flame sensor, as necessary. |
| Combustion air | Ensure proper adjustment of primary and secondary chamber combustion air, and adjust as necessary. |
| Hinges and door latches | Inspect and lubricate as necessary. |
| Dampers, fans, and blowers | Inspect for proper operation. |
| Incinerator door and door gaskets | Inspect for proper sealing. |
| Motors | Inspect for proper operation. |
| Primary chamber refractory lining | Inspect lining; clean and repair/replace as necessary. |
| Incinerator shell | Inspect for corrosion and/or hot spots. |
| Secondary/tertiary chamber and stack | Inspect and clean as necessary. |
| Mechanical loader, including limit switches | Inspect for proper operation, if applicable. |
| Waste bed (grates) | visually inspect and repair/seal, as appropriate. |
| Air pollution control device(s) | Inspect device(s) for proper operation, if applicable. |
| Waste heat boiler systems | Inspect to ensure proper operation, if applicable. |
| Bypass stack components | Inspect components. |

| | |
|---|---|
| Thermocouples, sorbent feed systems, and any other monitoring equipment | Ensure proper calibration of equipment. |
| General equipment | Generally observe that the equipment is maintained in good operating condition. |
| Incinerator operation | For the burn cycle that follows the inspection, document that the incinerator is operating properly and make any necessary adjustments. |

(b) Each small-remote HMIWI unit shall complete all necessary repairs within ten operating days, but in no case longer than 30 calendar days, following an equipment inspection date where the problems were first noted, unless the owner or operator obtains written approval from the executive director, or a designated representative of the commission, establishing a date when all necessary repairs will be completed.

Adopted May 17, 2000 Effective June 11, 2000

**§113.2075. Compliance and Performance Testing Requirements.**

(a) Except as provided in subsection (b) of this section, each hospital/medical/infectious waste incinerator (HMIWI) unit shall meet the following compliance and performance testing requirements.

(1) The owner or operator of an affected facility shall ensure an initial performance test is conducted to determine compliance with the emission limits using the test methods and procedures listed in Table 4 of this paragraph and subparagraphs (A)-(H) of this paragraph. The use of the bypass stack during a performance test shall invalidate the performance test.

Table 4. Test Methods.

| EMISSION LIMIT | TEST METHODS (EPA Reference Methods are as specified in Title 40 Code of Federal Regulations, Appendix A, dated 1999, unless otherwise specified) | |
|---|---|---|
| | Small-Remote HMIWI | Small, Medium, and Large HMIWI |
| Opacity | Method 9 | Method 9 |
| Particulate Matter (PM) | Method 5 or Method 29 | Method 5 or Method 29 |
| Carbon Monoxide (CO) | Method 10 or 10B | Method 10, or 10B |
| Dioxins/furans | Method 23[1] for total dioxins/furans or TEQ Method specified in §113.2075(a)(2)(I)(ii) | Method 23[1] for total dioxins/furans or TEQ Method specified in §113.2075(a)(2)(I)(ii) |
| Hydrogen Chloride (HCl) | Testing not required | Method 26 |
| Sulfur Dioxide ($SO_2$) | Testing not required | Testing not required |
| Nitrogen Oxides ($NO_x$) | Testing not required | Testing not required |
| Lead (Pb) | Testing not required | Reference Method 29 |
| Cadmium (Cd) | Testing not required | Reference Method 29 |
| Mercury (Hg) | Reference Method 29 | Reference Method 29 |

Footnotes:
[1] Minimum sample time is 4 hours per test run.

(A) All performance tests shall consist of a minimum of three test runs conducted under representative operating conditions.

(B) The minimum sample time shall be one hour per test run unless otherwise indicated.

(C) EPA Test Method 1 of 40 Code of Federal Regulations (CFR) 60, Appendix A, shall be used to select the sampling location and number of traverse points.

(D) EPA Test Method 3 or 3A of Appendix A shall be used for gas composition analysis, including measurement of oxygen concentration. Method 3 or 3A shall be used simultaneously with each test method referenced in Table 4 of this paragraph.

(E) The pollutant concentrations shall be adjusted to 7.0% oxygen using the following equation.

Where:

*Pc* = the corrected concentration of the pollutant in question,

*Pm* = the measured pollutant concentration,

13.9 = 20.9% oxygen - 7% oxygen (defined oxygen correction basis),

20.9 = oxygen content in air (%), and

*Y* = the measured concentration of oxygen (%) in the stack gas using the Orsat method for oxygen analysis of dry flue gas as defined in 40 CFR 60, Appendix A (Method 3).

(F) If the affected facility has selected the toxic equivalent quantity method for dioxins/furans, the following procedures shall be used to determine compliance:

(i) measure the concentration of each dioxin/furan tetra- through octa-cogener emitted using EPA Reference Method 23;

(ii) for each dioxin/furan cogener, multiply the cogener concentration by its corresponding toxic equivalency factor specified in Table 5 of this clause; and

Table 5. Toxic Equivalency Factors (TEF).

| Dioxin/furan Cogener | TEF |
|---|---|
| 2, 3, 7, 8-tetrachlorinated dibenzo-p-dioxin | 1.0 |
| 1, 2, 3, 7, 8-pentachlorinated dibenzo-p-dioxin | 0.5 |
| 1, 2, 3, 4, 7, 8-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1, 2, 3, 7, 8, 9-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1, 2, 3, 6, 7, 8-hexachlorinated dibenzi-p-dioxin | 0.1 |
| 1, 2 ,3, 4, 6, 7, 8-heptachlorinated dibenzi-p-dioxin | 0.01 |
| octachlorinated dibenzi-p-dioxin | 0.001 |
| 2, 3, 7, 8-tetrachlorinated dibenzofuran | 0.1 |
| 2, 3, 4, 7, 8-pentachlorinated dibenzofuran | 0.5 |
| 1, 2, 3, 7, 8-pentachlorinated dibenzofuran | 0.05 |
| 1, 2, 3, 4, 7, 8-hexachlorinated dibenzofuran | 0.1 |

| | |
|---|---|
| 1, 2, 3, 6, 7, 8-hexachlorinated dibenzofuran | 0.1 |
| 1, 2, 3, 7, 8, 9-hexachlorinated dibenzofuran | 0.1 |
| 2, 3, 4, 6, 7, 8-hexachlorinated dibenzofuran | 0.1 |
| 1, 2, 3, 4, 6, 7, 8-heptachlorinated dibenzofuran | 0.01 |
| 1, 2, 3, 4, 7, 8, 9-heptachlorinated dibenzofuran | 0.01 |
| Octachlorinated dibenzofuran | 0.001 |

(iii) sum the products calculated in clause (ii) of this subparagraph to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(G) If the affected facility has selected the percentage reduction method for hydrogen chloride (HCl), the percentage reduction in HCl ($\%R_{HCl}$) is computed using the following formula.

Where:

$\%R_{HCl}$ = percentage reduction of HCl emissions achieved;

$E_i$ = HCl emission concentration measured at the control device inlet, corrected to 7% oxygen (dry basis);

$E_o$ = HCl emission concentration measured at the control device outlet, corrected to 7% oxygen (dry basis).

(H) If the affected facility has selected the percentage reduction method for metals (lead, cadmium, or mercury), the percentage reduction of each metal ($\% R_{metal}$) is computed using the following formula.

Where:

$\%R_{metal}$ = percentage reduction of metal emissions achieved;

$E_i$ = metal emission concentration measured at the control device inlet, corrected to 7% oxygen (dry basis);

$E_o$ = metal emission concentration measured at the control device outlet, corrected to 7% oxygen (dry basis).

(2) Following the date on which the initial performance test is completed or is required to be completed under §113.2079 of this title (relating to Compliance Schedules), whichever date comes first, the owner or operator of an affected facility shall:

(A) determine compliance with the opacity limit by conducting an annual performance test (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in Table 4 of paragraph (1) of this subsection;

(B) determine compliance with the particulate matter (PM), carbon monoxide (CO), and HCl emission limits by conducting an annual performance test (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in paragraph (1) of this subsection. If all three performance tests over a three-year period indicate compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for the subsequent two years. At a minimum, a performance test for PM, CO, or HCl shall be conducted every third year (no more than 36 months following the previous performance test). If a performance test conducted every third year indicates compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for an additional two years. If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a three-year period indicate compliance with the emission limit. The use of the bypass stack during a performance test shall invalidate the performance test; and

(C) facilities using a continuous emissions monitoring system (CEMS) to demonstrate compliance with any of the emission limits shall:

(i) determine compliance with the appropriate emission limits using a 12-hour rolling average, calculated each hour as the average of the previous 12 operating hours (not including startup, shutdown, or malfunction); and

(ii) operate all CEMS in accordance with the applicable procedures under 40 CFR 60, Appendixes B and F.

(3) For an affected facility equipped with a dry scrubber followed by a fabric filter, a wet scrubber, or dry scrubber followed by both a fabric filter and a wet scrubber, the following conditions apply.

(A) The owner or operator shall establish the appropriate maximum and minimum operating parameters, indicated in Table 6 of this subparagraph for each control system, as site specific operating parameters based on data obtained from the initial performance test to determine compliance with the emission limits.

Table 6. Operating Parameters to be Monitored, and Minimum Measurement and Recording Frequencies.

| Operating Parameters to be Monitored (3-hour rolling averages) | Minimum Frequency | | Control System | | |
|---|---|---|---|---|---|
| | Data Measurement | Data Recording | Dry Scrubber followed by Fabric Filter | Wet Scrubber | Dry Scrubber followed by Fabric Filter and Wet Scrubber |
| Maximum Operating Parameters | | | | | |
| Charge Rate | continuous | 1 per hour | ✓ | ✓ | ✓ |
| Fabric Filter Inlet Temperature | continuous | 1 per minute | ✓ | | ✓ |
| Flue Gas Temperature | continuous | 1 per minute | | ✓ | ✓ |
| Minimum Operating Parameters | | | | | |
| Secondary Chamber Temperature | continuous | 1 per minute | ✓ | ✓ | ✓ |
| Dioxin/furan Sorbent Flow Rate | hourly | 1 per hour | ✓ | | ✓ |
| HCl Sorbent Flow Rate | hourly | 1 per hour | ✓ | | ✓ |
| Mercury ($H_g$) Sorbent Flow Rate | hourly | 1 per hour | ✓ | | ✓ |
| Pressure Drop Across the Wet Scrubber or Horsepower or Amperage to Wet Scrubber | continuous | 1 per minute | | ✓ | ✓ |
| Wet Scrubber Liquor Flow Rate | continuous | 1 per minute | | ✓ | ✓ |
| Wet Scrubber Liquor pH | continuous | 1 per minute | | ✓ | ✓ |

(B) Following the date on which the initial performance test is completed or is required to be completed, whichever date comes first, the owner or operator shall ensure that the affected facility does not operate above any of the applicable maximum operating parameters or below any of the applicable minimum operating parameters listed in Table 6 of subparagraph (A) of this paragraph and measured as three-hour rolling averages (calculated each hour as the average of the previous three

operating hours) at all times except during periods of startup, shutdown, and malfunction. Operating parameter limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating parameters shall constitute a violation of established operating parameters. Except as provided in subparagraph (C) of this paragraph, operation of affected facilities outside of the operating parameter limit combinations as listed in Table 7 of this subparagraph shall constitute violations of the applicable emission standards.

Table 7. Emission Violation Triggers.

| CONTROL METHOD | OPERATING PARAMETER (3-hour rolling averages) | Particulate Matter | Carbon Monoxide | Dioxin/furan | Hydrogen Chloride | Sulfur Dioxide | Oxides of Nitrogen | Lead | Cadmium | Mercury |
|---|---|---|---|---|---|---|---|---|---|---|
| Dry Scrubber followed by a Fabric Filter | > Max. Charge Rate and <Min. Secondary Chamber Temp. | | ✓[1] | | | | | | | |
| | >Max. Charge Rate and > Max. Fabric Filter Inlet Temp. and <Min. Dioxin/furan Sorbent Flow Rate | | | ✓ | | | | | | |
| | > Max. Charge Rate and <Min. HCl Sorbent Flow Rate | | | | ✓ | | | | | |
| | >Max. Charge Rate and <Min. Hg Sorbent Flow Rate | | | | | | | | | ✓ |
| | Use of Bypass Stack (except during startup, shutdown, or malfunction) | ✓ | | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| Wet Scrubber | >Max. Charge Rate and <Min. Pressure Drop Across Wet Scrubber or <Min. Horsepower to Wet Scrubber | ✓ | | | | | | | | |

| CONTROL METHOD | OPERATING PARAMETER (3-hour rolling averages) | Particulate Matter | Carbon Monoxide | Dioxin/furan | Hydrogen Chloride | Sulfur Dioxide | Oxides of Nitrogen | Lead | Cadmium | Mercury |
|---|---|---|---|---|---|---|---|---|---|---|
| | or <Min. Amperage to Wet Scrubber | | | | | | | | | |
| | > Max. Charge Rate and <Min. Secondary Chamber Temp. | | ✓[1] | | | | | | | |
| | > Max. Charge Rate and <Min. Secondary Chamber Temp. and <Min. Wet Scrubber Liquor Flow Rate | | | ✓ | | | | | | |
| | > Max. Charge Rate and <Min. Wet Scrubber Liquor pH | | | | ✓ | | | | | |
| | > Max. Charge Rate and >Max. Flue Gas Temp. | | | | | | | | | ✓ |
| | Use of Bypass Stack (except during startup, shutdown, or malfunction) | ✓ | | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| Dry Scrubber followed by a Fabric Filter and a Wet Scrubber | > Max. Charge Rate and <Min. Secondary Chamber Temp. | | ✓[1] | | | | | | | |
| | >Max. Charge Rate and > Max. Fabric Filter Inlet Temp. and <Min. Dioxin/furan Sorbent Flow Rate | | | ✓ | | | | | | |
| | | | | | | | | | | |
| | > Max. Charge Rate and | | | | ✓ | | | | | |

| CONTROL METHOD | OPERATING PARAMETER (3-hour rolling averages) | Particulate Matter | Carbon Monoxide | Dioxin/furan | Hydrogen Chloride | Sulfur Dioxide | Oxides of Nitrogen | Lead | Cadmium | Mercury |
|---|---|---|---|---|---|---|---|---|---|---|
| | <Min. Wet Scrubber Liquor pH | | | | | | | | | |
| | >Max. Charge Rate<br>and<br><Min. Hg Sorbent Flow Rate | | | | | | | | | ✓ |
| | Use of Bypass Stack<br>(except during startup, shutdown, or malfunction) | ✓ | | ✓ | ✓ | | | ✓ | ✓ | ✓ |

Footnotes:
[1] If a CO CEMS is used, the violation of the CO emissions limit is determined by the CEMS.

(C) The owner or operator may conduct a repeat performance test within 30 days of violation of applicable operating parameters to demonstrate that the affected facility is not in violation of the applicable emission limits. Repeat performance tests conducted under this subparagraph shall be conducted using the identical operating parameters that indicated a violation under subparagraph (B) of this paragraph.

(4) The owner or operator of an affected facility using an air pollution control device other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber to comply with the emission limits under §113.2072 of this title (relating to Emission Limits), shall petition the executive director or his designated representative for other site-specific operating parameters to be established during the initial performance test and continuously monitored thereafter. The owner or operator shall not conduct the initial performance test until after the petition has been approved by the executive director or his designated representative.

(5) The owner or operator of an affected facility may conduct a repeat performance test at any time to establish new values for the operating parameters. The executive director or his designated representative may also request a repeat performance test at any time.

(b) Each small-remote HMIWI unit, as defined in §113.2070 of this title (relating to Definitions) shall demonstrate compliance with §113.2072 of this title by meeting the following compliance and performance testing requirements.

(1) The owner or operator shall conduct the performance testing requirements in subsection (a)(1)(A)-(E) of this section; Table 4 of subsection (a)(1) of this section for opacity, PM, CO, dioxins/furans, and mercury; and subsection (a)(2)(A) of this section, as appropriate. The 2,000 pound per week limitation under §113.2072(a)(4) of this title does not apply during performance tests.

(2) The owner or operator shall establish maximum charge rate and minimum secondary chamber temperature as site-specific operating parameters during the initial performance test to determine compliance with applicable emission limits.

(3) Following the date on which the initial performance test is completed or is required to be completed under §113.2079 of this title, whichever date comes first, the owner or operator shall ensure that the designated facility does not operate above the maximum charge rate or below the minimum secondary chamber temperature measured as three-hour rolling averages (calculated each hour as the average of the previous three operating hours) at all times except during periods of startup, shutdown, and malfunction. Operating parameter limits do not apply during performance tests. Operation above the maximum charge rate or below the minimum secondary chamber temperature shall constitute a violation of the established operating parameters.

(4) Except as provided in paragraph (5) of this subsection, operation of the designated facility above the maximum charge rate and below the minimum secondary chamber temperature on a three-hour rolling average simultaneously shall constitute a violation of the PM, CO, and dioxin/furan emission limits.

(5) The owner or operator may conduct a repeat performance test within 30 days of violation of applicable operating parameters to demonstrate that the designated facility is not in violation of the applicable emission limits. Repeat performance tests conducted under this subsection must be conducted using the identical operating parameters that indicated a violation under paragraph (4) of this subsection.

(c) Equivalent test methods may be approved by the executive director or his designated representative.

Adopted May 17, 2000 Effective June 11, 2000

**§113.2076. Monitoring, Reporting, and Recordkeeping Requirements.**

(a) Monitoring Requirements for Affected Facilities. Except as provided in subsection (b) of this section, the owner or operator of a hospital/medical/infectious waste incinerator (HMIWI) unit, as defined in §113.2070 of this title (relating to Definitions) shall comply with the following monitoring requirements.

(1) The owner or operator of an affected facility shall install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters listed in Table 6, §113.2075(a)(3)(A) of this title (relating to Compliance and Performance Testing Requirements), such that these devices (or methods) measure

and record values for these operating parameters at the frequencies indicated in Table 6, §113.2075(a)(3)(A) of this title, at all times, except during periods of startup and shutdown.

(2) The owner or operator of an affected facility shall install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time, and duration.

(3) The owner or operator of an affected facility using some method other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber to comply with the emission limits under §113.2072 of this title (relating to Emission Limits) shall install, calibrate (to manufacturers' specifications), maintain, and operate the equipment necessary to monitor the site-specific operating parameters developed under §113.2075(a)(5) of this title.

(4) The owner or operator of an affected facility shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75% of the operating hours per day and for 90% of the operating days per calendar quarter that the affected facility is combusting hospital waste and/or medical/infectious waste.

(5) Commercial medical waste incinerators and HMIWI units burning more than 200 (medium and large units) pounds per hour of hospital waste or medical/infectious waste shall be equipped with continuous emissions monitoring systems (CEMS) which measure and record in-stack carbon monoxide (CO) in addition to the other requirements of this section. Compliance with the CO limits specified in Table 1, §113.2071(a) of this title (relating to Designated Facilities) may be demonstrated using a rolling hourly average. The rolling hourly average shall be defined as the arithmetic mean of the 60 most recent one-minute concentrations measured by the CEMS.

(6) HMIWI units may be equipped with certified continuous opacity monitoring systems (COMS) which measure and record exhaust plume opacity. Compliance with the opacity limits specified in §113.2072(b)(2) of this title may be demonstrated using a rolling hourly average. The rolling hourly average shall be defined as the arithmetic mean of the 60 most recent one-minute opacity values measured by the COMS.

(7) Except in the case of incinerators with COMS, CO CEMS, or equivalent monitors approved by the executive director or his designated representative, the incinerator shall be limited in hours of operation from one hour after sunrise to one hour before sunset.

(b) Monitoring Requirements for Small-Remote HMIWI Units. The owner or operator of a small-remote HMIWI unit, as defined in §113.2070 of this title shall comply with the following monitoring requirements.

(1) The owner or operator shall install, calibrate (to manufacturers' specifications), maintain, and operate a device for measuring and recording the temperature of the secondary chamber on a continuous basis, the output of which shall be recorded, at a minimum, once every minute throughout operation.

(2) The owner or operator shall install, calibrate (to manufacturers' specifications), maintain, and operate a device which automatically measures and records the date, time, and weight of each charge fed into the HMIWI.

(3) The owner or operator shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75% of the operating hours per day and for 90% of the operating days per calendar quarter that the designated facility is combusting hospital waste and/or medical/infectious waste.

(c) Reporting and Recordkeeping Requirements for Affected HMIWI Units. Except as provided in subsections (d) - (f) of this section, the owner or operator of an HMIWI unit, as defined in §113.2070 of this title shall comply with the following reporting and recordkeeping requirements. The owner or operator of an affected facility shall maintain the information (as applicable) listed in Table 8 of this subsection. This information shall be maintained on-site for a period of at least five years in paper copy, computer-readable format, or an alternative format approved by the executive director or his designated representative. The information shall be made available upon request by authorized representatives of the commission, the EPA, or local air pollution control agencies.

Table 8. Records and Reports for Affected Facilities.

| Record or Report | Record or Report Type | Data to be Recorded or Reported |
|---|---|---|
| Operating Records (Include calendar dates for each record) | Emission Rates and Operating Parameters | • Concentration of any pollutant listed in §113.2072, or<br>• Measurements of opacity or CO as determined by the continuous monitoring system (if applicable). |
| | | • Charge dates, times, weights, and hourly charge rates. |
| | | • Fabric filter inlet temperatures during each minute of operation, as applicable. |
| | | • Amount and type of dioxin/furan sorbent used during each hour of operation, as applicable. |
| | | • Amount and type of Hg sorbent used during each hour of operation, as applicable. |
| | | • Amount and type of HCl sorbent used during each hour of operation, as applicable. |
| | | • Secondary chamber temperatures recorded during each minute of operation. |
| | | • Liquor flow rate to the wet scrubber inlet during each minute of operation, as applicable. |

| Record or Report | Record or Report Type | Data to be Recorded or Reported |
|---|---|---|
| | | • Horsepower or amperage to the wet scrubber during each minute of operation, as applicable. |
| | | • Pressure drop across the wet scrubber system during each minute of operation, as applicable. |
| | | • Temperature at the outlet from the wet scrubber during each minute of operation, as applicable. |
| | | • pH att the inlet to the wet scrubber during each minute of operation, as applicable. |
| | | • Use of the bypass stack, including dates, times, and durations. |
| | | • All operating parameter data collected by facilities complying with §113.2075(a)(5) and §113.2076(a)(3). |
| | Days Where Emissions Rates or Operating Parameters Have Not Been Obtained | • Dates of occurrences<br>• Emission rate or operating parameter not measured.<br>• Reason for not obtaining the data.<br>• Corrective action taken. |
| | Equipment Malfunctions | • Calendar days, times, and durations of malfunctions.<br>• Malfunction description.<br>• Corrective action taken. |
| | Days Where Emissions Rates or Operating Parameters Have Been Exceeded | • Calendar days limits have been exceeded.<br>• Exceedance description.<br>• Exceedance reason.<br>• Corrective action taken. |
| | Performance Test Results | • Results of initial, annual, and any subsequent performance tests to determine compliance with emission limits and/or establish operating parameters, as applicable. |
| | Operator Training and Qualification | • Names of operators who have completed operator training requirements, including training documentation and training dates.<br>• Names of operators who have met the criteria for qualification under §113.2078 and their dates of qualification.<br>• Names of operators who have completed review of information required by |

| Record or Report | Record or Report Type | Data to be Recorded or Reported |
|---|---|---|
| | | §113.2078(b), including dates of initial and subsequent reviews. |
| | Calibration | • Calibration records of any monitoring devices required under §113.2076(a)(1)-(3). |
| Initial Performance Test Report | Report signed by the facilities manager and submitted to the executive director no later than 60 days after the initial performance test. | • Initial performance test data as recorded under §113.2075(a)(2)(A)-(M).<br>• Values for the site-specific operating parameters established under §113.2075(a)(4) or (5).<br>• Waste management plan as specified under §113.2077. |
| Annual Reports | Report signed by the facilities manager and submitted to the executive director one year following the submission of the initial performance test report or subsequent annual reports, unless the affected facility is subject to permitting requirements under Title V of the FCAA. Title V facilities shall submit these reports semiannually. | • Values for the site-specific operating parameters established under §113.2075(a)(4) or (5).<br>• Highest maximum and lowest minimum operating parameter, as applicable, for each operating parameter recorded for the calendar year (or semi-annual period) being reported, and the previous calendar year (or semi-annual period) being reported, in order to provide the executive director or his designated representative with a summary of the facility performance over a 2-year period.<br>•If a performance test was conducted during the reporting period, the results of that test.<br>• Any information recorded under §113.2076(c)(1)(C) or (E) for the calendar year being reported, and the previous calendar year, in order to provide the executive director or his designated representative with a summary of the facility performance over a 2-year period.<br>• If no exceedances or malfunctions were reported under §113.2076(c)(1)(C) or (E) for the calendar year being reported, a statement that no exceedances occurred during the reporting period.<br>• Any use of the bypass stack, the duration, reason for malfunction, and corrective action taken.<br>• Waste Management Plan as specified under §113.2077, if revised during the reporting period. |

| Record or Report | Record or Report Type | Data to be Recorded or Reported |
|---|---|---|
| Semiannual Reports | Report signed by the facilities manager and submitted to the executive director no later than 60 days following the end of the reporting period. The first semi-annual reporting period ends 6 months following the submission of the initial performance test report. Subsequent reports shall be submitted no later than 6 calendar months following the previous report. | • Any information recorded under §113.2076(c)(1)(C) or (E) for the semi-annual period being reported. |

(d) Reporting and Recordkeeping Requirements for Small-Remote HMIWI Units. The owner or operator of a small-remote HMIWI unit, as defined in §113.2070 of this title shall comply with the following reporting and recordkeeping requirements:

(1) maintain records of the annual equipment inspections, any required maintenance, and any repairs not completed within ten operating days of an inspection. This information shall be maintained on-site for a period of at least five years in paper copy, computer-readable format, or an alternative format approved by the executive director or his designated representative. The information shall be made available upon request by authorized representatives of the commission, the EPA, or local air pollution control agencies; and

(2) submit an annual report containing information recorded under paragraph (1) of this subsection no later than 60 days following the year in which data was collected. Subsequent reports shall be sent no later than 12 calendar months following the previous report, unless the HMIWI unit is subject to permitting requirements under Title V of the FCAA, when the reports must be submitted semiannually. The report shall be signed by the facilities manager.

(e) Reporting and Recordkeeping Requirements for Units Burning Only Pathological Waste, Low-level Radioactive Waste, and/or Chemotherapeutic Waste. Combustors and incinerators burning only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste, all as defined in §113.2070 of this title, are exempt from all requirements of this division with the exception of the following reporting and recordkeeping requirements provided that the owner or operator of the combustor:

(1) files an exemption claim with the executive director or his designated representative, with a copy to the EPA, Region VI, within one year of the effective date of this division; and

(2) keeps records on a calendar quarter basis of the periods of time when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned.

(f) Reporting and Recordkeeping Requirements for Co-fired Combustors. Any co-fired combustor, as defined in §113.2070 of this title, is not subject to this division provided that the owner/operator of the combustor:

(1) files an exemption claim with the executive director or his designated representative, with a copy to the EPA, Region VI, within one year of the effective date of this division;

(2) provides an estimate of the relative weight of hospital waste, medical/infectious waste, and other fuels and/or wastes to be combusted; and

(3) keeps records on a calendar quarter basis of the weight of hospital waste and medical/infectious waste combusted, and the weight of all other fuels and wastes combusted at the co-fired combustor.

Adopted May 17, 2000 Effective June 11, 2000

**§113.2077. Waste Management Plan.**

The owner or operator of the affected facility shall prepare a waste management plan. The plan shall identify both the feasibility and the approach to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. A waste management plan may include, but is not limited to, consideration of solid waste components such as paper, cardboard, plastics, glass, battery, or metal recycling; or purchasing recycled or recyclable products. A plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream. It should identify, where possible, reasonably available additional waste management measures, taking into account the effectiveness of waste management measures already in place, the costs of additional measures, the emission reductions expected to be achieved, and any other environmental or energy impacts they might have. The American Hospital Association publication entitled "An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities," dated 1993, shall be considered in the development of the waste management plan.

Adopted May 17, 2000 Effective June 11, 2000

**§113.2078. Operating Procedures and Operator Training/Qualification Requirements.**

(a) Operating Procedure Documentation. The owner or operator of a hospital/medical/ infectious waste incinerator (HMIWI) unit subject to the requirements of this division shall document their operating procedures as specified in Table 9 of this subsection, and maintain the information listed in a readily accessible location for all HMIWI operators. This information, along with records of training shall be available for inspection by the commission, the EPA, or the local air pollution control agency. The owner or operator of an affected facility shall establish a program for reviewing the information listed in Table 9 of this subsection annually with each HMIWI operator for the purpose of maintaining proficiency of the

operators. The initial review shall be conducted within six months after the effective date of this division or prior to assumption of responsibilities affecting HMIWI operation, whichever date is later.

Table 9. Operating Procedure Documentation.

| DOCUMENT TYPE | REQUIREMENTS |
|---|---|
| Source Documents | • A summary of the applicable standards under this division.<br>• A copy of the current Waste Management Plan.<br>• A description of the basic combustion theory applicable to the HMIWI unit. |
| Procedures | • Waste receiving, handling, and charging.<br>• Startup and shutdown.<br>• HMIWI unit operation.<br>• Maintenance of proper combustion air supply.<br>• Applicable air pollution control system operation to maintain emission standards.<br>• Response to periodic malfunctions or conditions that may lead to malfunctions.<br>• Bypass stack operation.<br>• Emissions monitoring.<br>• Recordkeeping and reporting.<br>• Ash handling. |

(b) Training and Qualification. No owner or operator of an affected facility shall allow the affected facility to operate at any time unless a fully trained and qualified HMIWI operator is accessible, either at the facility or available within one hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one or more HMIWI operators.

(1) The minimum requirements for operator training are specified in Table 10 of this paragraph and shall be obtained through any course which meets these requirements.

Table 10. Training Course Requirements.

| | |
|---|---|
| Initial Classroom Training (24 hours on following subjects) | • Environmental concerns, including pathogen destruction and emission types.<br>• Basic combustion principles, including products of combustion.<br>• Operation of the incinerator type to be used by the operator, including proper startup, waste charging, and shutdown procedures.<br>• Combustion controls and monitoring.<br>• Operation of air pollution control equipment and factors affecting performance.<br>• Monitoring methods for continuous emissions monitoring systems (CEMS), HMIWI and air pollution control equipment operating parameters, and calibration procedures as applicable.<br>• Inspection and maintenance of HMIWI, air pollution control equipment, |

| | |
|---|---|
| | and CEMS.<br>• Actions to correct malfunctions or conditions which may lead to malfunction.<br>• Bottom and fly ash characteristics and handling procedures.<br>• Applicable federal, state, and local regulations.<br>• Work safety procedures.<br>• Pre-startup inspections.<br>• Recordkeeping requirements. |
| Annual Refresher Training (4 hours on following subjects) | • Update of regulations.<br>• Operation of the incinerator type used by the operator, including startup and shutdown procedures.<br>• Inspection and maintenance.<br>• Actions to correct malfunctions or conditions which may lead to malfunction.<br>• Discussion of operating problems encountered by attendees. |
| Examination | • An examination designed and administered by the instructor. |
| Reference Material | • Material distributed to attendees covering the course topics. |

(2) Qualification shall be obtained by:

(A) completion of a training course that satisfies the criteria under paragraph (1) of this subsection; and

(B) either six months experience as an HMIWI operator, six months experience as a direct supervisor of an HMIWI operator, or completion of at least two burn cycles under the observation of two qualified HMIWI operators.

(3) Qualification is valid for a period of one year beginning on the date on which the examination is passed or the completion of the required experience, whichever is later.

(4) To maintain qualification, the trained and qualified HMIWI operator shall complete and pass an annual review or refresher course of at least four hours covering the requirements in Table 10 of paragraph (1) of this subsection. A lapsed qualification shall be renewed by one of the following methods.

(A) For those operators whose qualification has lapsed less than three years, the re-qualification requirements shall include successfully completing annual refresher training described in Table 10 of paragraph (1) of this subsection.

(B) For those operators whose qualification has lapsed three years or longer, the re-qualification requirements shall include repeating the initial classroom training.

**§113.2079. Compliance Schedules.**

(a) Within 60 days from the date the commission publishes notice in the *Texas Register* that the EPA has approved these rules and state plan, an owner or operator subject to the requirements of this division shall submit to the executive director a notice of intention to comply with these requirements within one year after EPA approval, a petition requesting a compliance extension, a notice of intention to shut down their hospital/medical/infectious waste incinerator (HMIWI) unit, or a petition requesting an extension of the shutdown date. The executive director will approve or deny a petition for compliance or shutdown extension within 60 days of receipt of the petition.

(1) Except as provided in paragraph (2) of this subsection, an owner or operator subject to the requirements of this division shall be in compliance with all provisions of this division on or before the date one year after EPA approval of these rules and state plan, regardless of whether a designated facility is identified in the state plan inventory.

(2) An owner or operator who files a petition requesting a compliance extension shall comply with the requirements in Table 11 of this paragraph. The compliance schedule may be extended to allow compliance on or before the date three years after EPA approval of these rules and state plan, but in no case will a compliance extension be granted for a compliance date later than September 15, 2002.

Table 11. Compliance Extension Requirements.

| | |
|---|---|
| Analysis of Need | • Document the analysis undertaken to support the need for a compliance extension, including an explanation why one year is insufficient. |
| Analysis of Off-site Transport Option | • Evaluate the option of temporary or permanent transport of the waste offsite to a commercial medical waste treatment and disposal facility. |
| Control Plan<br><br>Must specify measurable and enforceable incremental steps of progress (dates) toward compliance for installation of necessary air pollution control equipment. | • Obtain services of architectural and engineering firm regarding the air pollution control devices (APCD).<br>• Obtain design drawings of APCDs.<br>• Contract award for control systems or process modifications, or purchase orders for APCDs.<br>• Submit petition for site-specific operating parameters under §113.2075(5), as applicable.<br>• Obtain major components of APCDs.<br>• Initiate of on-site construction or installation of APCDs or process changes.<br>• Complete on-site construction or installation of APCDs or process changes.<br>• Initial startup of APCDs.<br>• Initial compliance test(s) of APCDs.<br>• Final compliance. |

(3) Except as provided in paragraph (4) of this subsection, any HMIWI unit for which the owner or operator has filed a notice of intention to shut down will complete the shutdown on or before the date one year after EPA approval of these rules and state plan.

(4) An owner or operator who files a petition requesting a shutdown extension shall comply with the requirements in Table 12 of this paragraph. The shutdown schedule may be extended to allow compliance on or before the date three years after EPA approval of these rules and state plan, but in no case will a compliance extension be granted for a compliance date later than September 15, 2002.

Table 12. Shutdown Extension Requirements.

| | |
|---|---|
| Analysis of Need | • Document the analysis undertaken to support the need for a shutdown extension, including an explanation why one year is insufficient. |
| Analysis of Off-site Transport Option | • Evaluate the option of temporary or permanent transport of the waste offsite to a commercial medical waste treatment and disposal facility. |
| Shutdown Plan<br>Must specify measurable and enforceable incremental steps | Installing Alternative Treatment Technology (ATT)<br>• Contract award for ATT vendor.<br>• Initiate of on-site construction or installation of ATT. |

| | |
|---|---|
| | • Complete on-site construction or installation of ATT.<br>• Shutdown of existing HMIWI unit.<br>• Render existing HMIWI unit inoperable |
| of progress (dates) toward shutdown. | Contracting With Commercial Waste Treatment & Disposal Company (WTDC)<br><br>• Obtain price quotes for commercial disposal services.<br>• Contract start with WTDC.<br>• Shutdown of existing HMIWI unit.<br>• Render existing HMIWI unit inoperable. |

(b) An owner or operator subject to the requirements of this division shall be in compliance with the operator training and qualification requirements specified in §113.2078(b) of this title (relating to Operating Procedures and Operator Training/Qualification Requirements) and the inspection requirements specified in §113.2078(c) of this title on or before the date one year after EPA approval of these rules and state plan. Any owner or operator who has been granted an extended compliance schedule shall be in compliance with any additional operator training and qualification requirements and inspection requirements necessitated by the addition of air pollution control equipment on or before the extended compliance date granted by the executive director.

(c) An owner or operator of an affected HMIWI unit subject to the requirements of the federal operating permits program shall submit an abbreviated application to the executive director on or before September 15, 2000.

Adopted May 17, 2000 Effective June 11, 2000

## DIVISION 3: EMISSION GUIDELINES AND COMPLIANCE TIMES FOR SMALL MUNICIPAL WASTE COMBUSTION UNITS CONSTRUCTED ON OR BEFORE AUGUST 30, 1999
## §§113.2100 - 113.2174
## Effective May 14, 2009

### §113.2100. Definitions.

Terms used but not defined in this division are defined in the Federal Clean Air Act and in 40 Code of Federal Regulations Part 60, Subparts A and B.

(1) Administrator--The administrator of the United States Environmental Protection Agency or his/her authorized representative or the administrator of a state air pollution control agency.

(2) Air curtain incinerator--An incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which combustion occurs. Incinerators of that type can be constructed above or below ground and with or without refractory walls and floor.

(3) Batch municipal waste combustion unit--A municipal waste combustion unit designed so it cannot combust municipal solid waste continuously 24 hours per day because the design does not allow waste to be fed to the unit or ash to be removed during combustion.

(4) Calendar quarter--Three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1.

(5) Calendar year--365 (or 366 consecutive days in leap years) consecutive days starting on January 1 and ending on December 31.

(6) Chief facility operator--The person in direct charge and control of the operation of a municipal waste combustion unit. That person is responsible for daily onsite supervision, technical direction, management, and overall performance of the municipal waste combustion unit.

(7) Class I units--Small municipal waste combustion units subject to this division that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste. See the definition in this section of "Municipal waste combustion plant capacity" for specification of which units at a plant site are included in the aggregate capacity calculation.

(8) Class II units--Small municipal combustion units subject to this division that are located at municipal waste combustion plants with aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste. See the definition in this section of "Municipal waste combustion plant capacity" for specification of which units at a plant site are included in the aggregate capacity calculation.

(9) Clean wood--Untreated wood or untreated wood products including clean untreated lumber, tree stumps (whole or chipped), and tree limbs (whole or chipped). Clean wood does not include two items:

(A) "Yard waste," which is defined elsewhere in this section.

(B) Construction, renovation, or demolition wastes (for example, railroad ties and telephone poles) that are exempt from the definition of "Municipal solid waste" in this section.

(10) Co-fired combustion unit--A unit that combusts municipal solid waste with nonmunicipal solid waste fuel (for example, coal, industrial process waste). To be considered a co-fired combustion unit, the unit must be subject to a federally enforceable permit that limits it to combusting a fuel feed stream which is 30 percent or less (by weight) municipal solid waste as measured each calendar quarter.

(11) Continuous burning--The continuous, semicontinuous, or batch feeding of municipal solid waste to dispose of the waste, produce energy, or provide heat to the combustion system in preparation for waste disposal or energy production. Continuous burning does not mean the use of municipal solid waste solely to thermally protect the grate or hearth during the startup period when municipal solid waste is not fed to the grate or hearth.

(12) Continuous emission monitoring system--A monitoring system that continuously measures the emissions of a pollutant from a municipal waste combustion unit.

(13) Dioxins/furans--Tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans.

(14) Effective date of state plan approval--The effective date that the United States Environmental Protection Agency (EPA) approves the state plan. The *Federal Register* specifies the date in the notice that announces the EPA's approval of the state plan.

(15) Eight-hour block average--The average of all hourly emission concentrations or parameter levels when the municipal waste combustion unit operates and combusts municipal solid waste measured over any of three 8-hour periods of time:

(A) 12:00 midnight to 8:00 a.m.

(B) 8:00 a.m. to 4:00 p.m.

(C) 4:00 p.m. to 12:00 midnight.

(16) Federally enforceable--All limits and conditions the administrator can enforce (including the requirements of 40 Code of Federal Regulations (CFR) Parts 60, 61, and 63), requirements in a state's implementation plan, and any permit requirements established under 40 CFR §52.21 or under 40 CFR §51.18 and 40 CFR §51.24.

(17) First calendar half--The period that starts on January 1 and ends on June 30 in any year.

(18) Fluidized bed combustion unit--A unit where municipal waste is combusted in a fluidized bed of material. The fluidized bed material may remain in the primary combustion zone or may be carried out of the primary combustion zone and returned through a recirculation loop.

(19) Four-hour block average or 4-hour block average--The average of all hourly emission concentrations or parameter levels when the municipal waste combustion unit operates and combusts municipal solid waste measured over any of six 4-hour periods:

(A) 12:00 midnight to 4:00 a.m.

(B) 4:00 a.m. to 8:00 a.m.

(C) 8:00 a.m. to 12:00 noon.

(D) 12:00 noon to 4:00 p.m.

(E) 4:00 p.m. to 8:00 p.m.

(F) 8:00 p.m. to 12:00 midnight.

(20) Mass burn refractory municipal waste combustion unit--A field-erected municipal waste combustion unit that combusts municipal solid waste in a refractory wall furnace. Unless otherwise specified, that includes municipal waste combustion units with a cylindrical rotary refractory wall furnace.

(21) Mass burn rotary waterwall municipal waste combustion unit--A field-erected municipal waste combustion unit that combusts municipal solid waste in a cylindrical rotary waterwall furnace.

(22) Mass burn waterwall municipal waste combustion unit--A field-erected municipal waste combustion unit that combusts municipal solid waste in a waterwall furnace.

(23) Maximum demonstrated load of a municipal waste combustion unit--The highest 4-hour block arithmetic average municipal waste combustion unit load achieved during 4 consecutive hours in the course of the most recent dioxins/furans stack test that demonstrates compliance with the applicable emission limit for dioxins/furans specified in this division.

(24) Maximum demonstrated temperature of the particulate matter control device--The highest 4-hour block arithmetic average flue gas temperature measured at the inlet of the particulate matter control device during 4 consecutive hours in the course of the most recent stack test for dioxins/furans emissions that demonstrates compliance with the limits specified in this division.

(25) Medical/infectious waste--Any waste meeting the definition of "medical/infectious waste" in 40 Code of Federal Regulations §60.51c.

(26) Mixed fuel-fired (pulverized coal/refuse-derived fuel) combustion unit--A combustion unit that combusts coal and refuse-derived fuel simultaneously, in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the unit where it is combusted in suspension. That includes both conventional pulverized coal and micropulverized coal.

(27) Modification or modified municipal waste combustion unit--A municipal waste combustion unit you have changed after June 6, 2001, and that meets one of two criteria:

(A) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the unit (not including the cost of land) updated to current costs.

(B) Any physical change in the municipal waste combustion unit or change in the method of operating it that increases the emission level of any air pollutant for which new source performance standards have been established under the Federal Clean Air Act, §111 or §129. Increases in the emission level of any air pollutant are determined when the municipal waste combustion unit operates at 100 percent of its physical load capability and are measured downstream of all air pollution control devices. Load restrictions based on permits or other nonphysical operational restrictions cannot be considered in the determination.

(28) Modular excess-air municipal waste combustion unit--A municipal waste combustion unit that combusts municipal solid waste, is not field-erected, and has multiple combustion chambers, all of which are designed to operate at conditions with combustion air amounts in excess of theoretical air requirements.

(29) Modular starved-air municipal waste combustion unit--A municipal waste combustion unit that combusts municipal solid waste, is not field-erected, and has multiple combustion chambers in which the primary combustion chamber is designed to operate at substoichiometric conditions.

(30) Municipal solid waste or municipal-type solid waste--Household, commercial/retail, or institutional waste. Household waste includes material discarded by residential dwellings, hotels, motels, and other similar permanent or temporary housing. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes materials discarded by schools, by hospitals (nonmedical), by nonmanufacturing activities at prisons and government facilities, and other similar establishments or facilities. Household, commercial/retail, and institutional waste does include yard waste and refuse-derived fuel. Household, commercial/retail, and institutional waste does not include used oil; sewage sludge; wood pallets; construction, renovation, and demolition wastes (which include railroad ties and telephone poles); clean wood; industrial process or manufacturing wastes; medical waste; or motor vehicles (including motor vehicle parts or vehicle fluff).

(31) Municipal waste combustion plant--One or more municipal waste combustion units - at the same location as specified under Applicability of State Plans (40 Code of Federal Regulations §60.1550(a)).

(32) Municipal waste combustion plant capacity--The aggregate municipal waste combustion capacity of all municipal waste combustion units at the plant that are not subject to 40 Code of Federal Regulations Part 60, Subparts Ea, Eb, or AAAA.

(33) Municipal waste combustion unit--Any setting or equipment that combusts solid, liquid, or gasified municipal solid waste including, but not limited to, field-erected combustion units (with or without heat recovery), modular combustion units (starved-air or excess-air), boilers (for example, steam generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air curtain incinerators, or fluidized bed-fired), and pyrolysis/combustion units. Two criteria further define municipal waste combustion units:

(A) Municipal waste combustion units do not include pyrolysis or combustion units located at a plastics or rubber recycling unit as specified under Applicability of State Plans (40 Code of Federal Regulations §60.1555(h) and (i)). Municipal waste combustion units do not include cement kilns that combust municipal solid waste. Municipal waste combustion units also do not include internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.

(B) The boundaries of a municipal waste combustion unit are defined as follows. The municipal waste combustion unit includes, but is not limited to, the municipal solid waste fuel feed system, grate system, flue gas system, bottom ash system, and the combustion unit water system. The municipal waste combustion unit does not include air pollution control equipment, the stack, water treatment equipment, or the turbine-generator set. The municipal waste combustion unit boundary starts at the municipal solid waste pit or hopper and extends through three areas.

(i) The combustion unit flue gas system, which ends immediately after the heat recovery equipment or, if there is no heat recovery equipment, immediately after the combustion chamber.

(ii) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. It includes all ash handling systems connected to the bottom ash handling system.

(iii) The combustion unit water system, which starts at the feed water pump and ends at the piping that exits the steam drum or superheater.

(34) Particulate matter--Total particulate matter emitted from municipal waste combustion units as measured using United States Environmental Protection Agency Reference Method 5 in 40 Code of Federal Regulations Part 60, Appendix A and the procedures specified in §113.2142 of this title (relating to What test methods must I use to stack test?).

(35) Plastics or rubber recycling unit--An integrated processing unit for which plastics, rubber, or rubber tires are the only feed materials (incidental contaminants may be in the feed materials). The feed materials are processed and marketed to become input feed stock for chemical plants or petroleum refineries. The following three criteria further define a plastics or rubber recycling unit:

(A) Each calendar quarter, the combined weight of the feed stock that a plastics or rubber recycling unit produces must be more than 70 percent of the combined weight of the plastics, rubber, and rubber tires that recycling unit processes.

(B) The plastics, rubber, or rubber tires fed to the recycling unit may originate from separating or diverting plastics, rubber, or rubber tires from municipal or industrial solid waste. The feed materials may include manufacturing scraps, trimmings, and off-specification plastics, rubber, and rubber tire discards.

(C) The plastics, rubber, and rubber tires fed to the recycling unit may contain incidental contaminants (for example, paper labels on plastic bottles or metal rings on plastic bottle caps).

(36) Potential hydrogen chloride emissions--The level of emissions from a municipal waste combustion unit that would occur from combusting municipal solid waste without emission controls for acid gases.

(37) Potential mercury emissions--The level of emissions from a municipal waste combustion unit that would occur from combusting municipal solid waste without controls for mercury emissions.

(38) Potential sulfur dioxide emissions--The level of emissions from a municipal waste combustion unit that would occur from combusting municipal solid waste without emission controls for acid gases.

(39) Pyrolysis/combustion unit--A unit that produces gases, liquids, or solids by heating municipal solid waste. The gases, liquids, or solids produced are combusted and the emissions vented to the atmosphere.

(40) Reconstruction--Rebuilding a municipal waste combustion unit and meeting two criteria:

(A) The reconstruction begins after June 6, 2001.

(B) The cumulative cost of the construction over the life of the unit exceeds 50 percent of the original cost of building and installing the municipal waste combustion unit (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the municipal waste combustion unit used to calculate the costs, see the definition in this section of "Municipal waste combustion unit."

(41) Refractory unit or refractory wall furnace--A municipal waste combustion unit that has no energy recovery (such as through a waterwall) in the furnace of the municipal waste combustion unit.

(42) Refuse-derived fuel--A type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. That includes all classes of refuse-derived fuel including two fuels:

(A) Low-density fluff refuse-derived fuel through densified refuse-derived fuel.

(B) Pelletized refuse-derived fuel.

(43) Same location--The same or contiguous properties under common ownership or control, including those separated only by a street, road, highway, or other public right-of-way. Common ownership or control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, subdivision, or any combination thereof. Entities may include a municipality, other governmental unit, or any quasi-governmental authority (for example, a public utility district or regional authority for waste disposal).

(44) Second calendar half--The period that starts on July 1 and ends on December 31 in any year.

(45) Shift supervisor--The person who is in direct charge and control of operating a municipal waste combustion unit and who is responsible for onsite supervision, technical direction, management, and overall performance of the municipal waste combustion unit during an assigned shift.

(46) Spreader stoker, mixed fuel-fired (coal/refuse-derived fuel) combustion unit--municipal waste combustion unit that combusts coal and refuse-derived fuel simultaneously, in which coal is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.

(47) Standard conditions--When referring to units of measure, a temperature of 20 degrees Celsius and a pressure of 101.3 kilopascals.

(48) Startup period--The period when a municipal waste combustion unit begins the continuous combustion of municipal solid waste. It does not include any warmup period during which the municipal waste combustion unit combusts fossil fuel or other solid waste fuel but receives no municipal solid waste.

(49) State--Any of the 50 United States and the protectorates of the United States.

(50) State plan--A plan submitted pursuant to the Federal Clean Air Act, §111(d) and §129(b)(2) and 40 Code of Federal Regulations Part 60, Subpart B, that implements and enforces this division.

(51) Stoker (refuse-derived fuel) combustion unit--A steam generating unit that combusts refuse-derived fuel in a semisuspension combusting mode, using air-fed distributors.

(52) Total mass dioxins/furans or total mass--The total mass of tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans as determined using United States Environmental Protection Agency Reference Method 23 in 40 Code of Federal Regulations Part 60, Appendix A and the procedures specified in §113.2142 of this title (relating to What test methods must I use to stack test?).

(53) Twenty-four hour daily average or 24-hour daily average--Either the arithmetic mean or geometric mean (as specified) of all hourly emission concentrations when the municipal waste combustion unit operates and combusts municipal solid waste measured during the 24 hours between 12:00 midnight and the following midnight.

(54) Untreated lumber--Wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Untreated lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote.

(55) Waterwall furnace--A municipal waste combustion unit that has energy (heat) recovery in the furnace (for example, radiant heat transfer section) of the combustion unit.

(56) Yard waste--Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. They come from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include two items:

(A) Construction, renovation, and demolition wastes that are exempt from the definition of "Municipal solid waste" in this section.

(B) Clean wood that is exempt from the definition of "Municipal solid waste" in this section.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2101. What are my requirements for meeting increments of progress and achieving final compliance?**

(a) Class I units. If you plan to achieve compliance more than 1 year following the effective date of state plan approval and a permit modification is not required, or more than 1 year following the date of issuance of a revised construction or operating permit if a permit modification is required, you must meet five increments of progress:

(1) Submit a final control plan.

(2) Submit a notification of retrofit contract award.

(3) Initiate onsite construction.

(4) Complete onsite construction.

(5) Achieve final compliance.

(b) Class II units. If you plan to achieve compliance more than 1 year following the effective date of state plan approval and a permit modification is not required, or more than 1 year following the date of issuance of a revised construction or operating permit if a permit modification is required, you must meet two increments of progress:

(1) Submit a final control plan.

(2) Achieve final compliance.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2102. When must I complete each increment of progress?**

Table 1 in §113.2174 of this title (relating to Tables Relating to Division 3) specifies compliance dates for each of the increments of progress for Class I and II units. (See §113.2100 of this title (relating to Definitions) for definitions of classes.)

Adopted April 22, 2009 Effective May 14, 2009

**§113.2103. What must I include in the notifications of achievement of my increments of progress?**

Your notification of achievement of increments of progress must include three items:

(1) Notification that the increment of progress has been achieved.

(2) Any items required to be submitted with the increment of progress (§§113.2106 through 113.2110 of this title (relating to How do I comply with the increment of progress for submittal of a control plan? How do I comply with the increment of progress for awarding contracts? How do I comply with the increment of progress for initiating onsite construction? How do I comply with the increment of progress for completing onsite construction? and How do I comply with the increment of progress for achieving final compliance?)).

(3) The notification must be signed by the owner or operator of the municipal waste combustion unit.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2104. When must I submit the notifications of achievement of increments of progress?**

Notifications of the achievement of increments of progress must be postmarked no later than 10 days after the compliance date for the increment.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2105. What if I do not meet an increment of progress?**

If you fail to meet an increment of progress, you must submit a notification to the executive director postmarked within 10 business days after the specified date in Table 1 in §113.2174 of this title (relating to Tables Relating to Division 3) for achieving that increment of progress. The notification must inform the executive director that you did not meet the increment. You must include in the notification an explanation of why the increment of progress was not met and your plan for meeting the increment as expeditiously as possible. You must continue to submit reports on the first day of each subsequent month until the increment of progress is met.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2106. How do I comply with the increment of progress for submittal of a control plan?**

For your control plan increment of progress, you must complete two items:

(1) Submit the final control plan, including a description of the devices for air pollution control and process changes that you will use to comply with the emission limits and other requirements of this division.

(2) You must maintain a copy of the final control plan at the same location as the solid waste incineration unit.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2107. How do I comply with the increment of progress for awarding contracts?**

You must submit to the executive director a signed copy of the contracts awarded to initiate onsite construction, initiate onsite installation of emission control equipment, and incorporate process changes. Submit the copy of the contracts with the notification that the increment of progress has been achieved to the executive director. You do not need to include documents incorporated by reference or the attachments to the contracts.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2108. How do I comply with the increment of progress for initiating onsite construction?**

You must initiate onsite construction and installation of emission control equipment and initiate the process changes outlined in the final control plan.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2109. How do I comply with the increment of progress for completing onsite construction?**

You must complete onsite construction and installation of emission control equipment and complete process changes outlined in the final control plan.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2110. How do I comply with the increment of progress for achieving final compliance?**

For the final compliance increment of progress, you must complete two items:

(1) Complete all process changes and complete retrofit construction as specified in the final control plan.

(2) Connect the air pollution control equipment with the municipal waste combustion unit identified in the final control plan and complete process changes to the municipal waste combustion unit so that if the affected municipal waste combustion unit is brought online, all necessary process changes and air pollution control equipment are operating as designed.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2111. What must I do if I close my municipal waste combustion unit and then restart my municipal waste combustion unit?**

(a) If you close your municipal waste combustion unit but will reopen it prior to the final compliance date in your state plan, you must meet the increments of progress specified in §113.2101 of this title (relating to What are my requirements for meeting increments of progress and achieving final compliance?).

(b) If you close your municipal waste combustion unit but will restart it after your final compliance date, you must complete emission control retrofit and meet the emission limits and good combustion practices on the date your municipal waste combustion unit restarts operation.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2112. What must I do if I plan to permanently close my municipal waste combustion unit and not restart it?**

(a) If you plan to close your municipal waste combustion unit rather than comply with the state plan, you must submit a closure notification, including the date of closure, to the executive director by the date your final control plan is due.

(b) If the closure date is later than 1 year after the effective date of state plan approval, you must enter into a legally binding closure agreement with the executive director by the date your final control plan is due. The agreement must specify the date by which operation will cease.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2113. What types of training must I do?**

There are two types of required training:

(1) Training of operators of municipal waste combustion units using the United States Environmental Protection Agency or a state-approved training course.

(2) Training of plant personnel using a plant-specific training course.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2114. Who must complete the operator training course? By when?**

(a) Three types of employees must complete the United States Environmental Protection Agency (EPA) or state-approved operator training course:

(1) Chief facility operators.

(2) Shift supervisors.

(3) Control room operators.

(b) Those employees must complete the operator training course by the later of three dates:

(1) One year after the effective date of state plan approval.

(2) Six months after your municipal waste combustion unit starts up.

(3) The date before an employee assumes responsibilities that affect operation of the municipal waste combustion unit.

(c) The requirement in subsection (a) of this section does not apply to chief facility operators, shift supervisors, and control room operators who have obtained full certification from the American Society of Mechanical Engineers on or before the effective date of state plan approval.

(d) You may request that the EPA waive the requirement in subsection (a) of this section for chief facility operators, shift supervisors, and control room operators who have obtained provisional certification from the American Society of Mechanical Engineers on or before the effective date of state plan approval.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2115. Who must complete the plant-specific training course?**

All employees with responsibilities that affect how a municipal waste combustion unit operates must complete the plant-specific training course. Include at least six types of employees:

(1) Chief facility operators.

(2) Shift supervisors.

(3) Control room operators.

(4) Ash handlers.

(5) Maintenance personnel.

(6) Crane or load handlers.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2116. What plant-specific training must I provide?**

For plant-specific training, you must do four things:

(1) For training at a particular plant, develop a specific operating manual for that plant by the later of two dates:

(A) Six months after your municipal waste combustion unit starts up.

(B) One year after the effective date of state plan approval.

(2) Establish a program to review the plant-specific operating manual with people whose responsibilities affect the operation of your municipal waste combustion unit. Complete the initial review by the later of three dates:

(A) One year after the effective date of state plan approval.

(B) Six months after your municipal waste combustion unit starts up.

(C) The date before an employee assumes responsibilities that affect operation of the municipal waste combustion unit.

(3) Update your manual annually.

(4) Review your manual with staff annually.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2117. What information must I include in the plant-specific operating manual?**

You must include 11 items in the operating manual for your plant:

(1) A summary of all applicable requirements in this division.

(2) A description of the basic combustion principles that apply to municipal waste combustion units.

(3) Procedures for receiving, handling, and feeding municipal solid waste.

(4) Procedures to be followed during periods of startup, shutdown, and malfunction of the municipal waste combustion unit.

(5) Procedures for maintaining a proper level of combustion air supply.

(6) Procedures for operating the municipal waste combustion unit in compliance with the requirements contained in this division.

(7) Procedures for responding to periodic upset or off-specification conditions.

(8) Procedures for minimizing carryover of particulate matter.

(9) Procedures for handling ash.

(10) Procedures for monitoring emissions from the municipal waste combustion unit.

(11) Procedures for recordkeeping and reporting.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2118. Where must I keep the plant-specific operating manual?**

You must keep your operating manual in an easily accessible location at your plant. It must be available for review or inspection by all employees who must review it and by the executive director.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2119. What types of operator certification must the chief facility operator and shift supervisor obtain and by when must they obtain it?**

(a) Each chief facility operator and shift supervisor must obtain and keep a current provisional operator certification from the American Society of Mechanical Engineers (QRO - 1 - 1994) (incorporated by reference in 40 Code of Federal Regulations (CFR) §60.17(h)(1)) or a current provisional operator certification from your state certification program.

(b) Each chief facility operator and shift supervisor must obtain a provisional certification by the later of three dates:

(1) For Class I units, 12 months after the effective date of state plan approval. For Class II units, 18 months after the effective date of state plan approval.

(2) Six months after the municipal waste combustion unit starts up.

(3) Six months after they transfer to the municipal waste combustion unit or 6 months after they are hired to work at the municipal waste combustion unit.

(c) Each chief facility operator and shift supervisor must take one of three actions:

(1) Obtain a full certification from the American Society of Mechanical Engineers or a state certification program in your state.

(2) Schedule a full certification exam with the American Society of Mechanical Engineers (QRO - 1 - 1994) (incorporated by reference in 40 CFR §60.17(h)(1)).

(3) Schedule a full certification exam with your state certification program.

(d) The chief facility operator and shift supervisor must obtain the full certification or be scheduled to take the certification exam by the later of the following dates:

(1) For Class I units, 12 months after the effective date of state plan approval. For Class II units, 18 months after the effective date of state plan approval.

(2) Six months after the municipal waste combustion unit starts up.

(3) Six months after they transfer to the municipal waste combustion unit or 6 months after they are hired to work at the municipal waste combustion unit.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2120. After the required date for operator certification, who may operate the municipal waste combustion unit?**

After the required date for full or provisional certification, you must not operate your municipal waste combustion unit unless one of four employees is on duty:

(1) A fully certified chief facility operator.

(2) A provisionally certified chief facility operator who is scheduled to take the full certification exam.

(3) A fully certified shift supervisor.

(4) A provisionally certified shift supervisor who is scheduled to take the full certification exam.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2121. What if all the certified operators must be temporarily offsite?**

If the certified chief facility operator and certified shift supervisor both are unavailable, a provisionally certified control room operator at the municipal waste combustion unit may fulfill the certified operator requirement. Depending on the length of time that a certified chief facility operator and certified shift supervisor are away, you must meet one of three criteria:

(1) When the certified chief facility operator and certified shift supervisor are both offsite for 12 hours or less and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the executive director.

(2) When the certified chief facility operator and certified shift supervisor are offsite for more than 12 hours, but for 2 weeks or less, and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the executive director. However, you must record the periods when the certified chief facility operator and certified shift supervisor are offsite and include the information in the annual report as specified under §113.2161(12) of this title (relating to What must I include in my annual report?).

(3) When the certified chief facility operator and certified shift supervisor are offsite for more than 2 weeks, and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without prior notice to, or approval by, the executive director. However, you must take two actions:

(A) Notify the executive director in writing within 10 days after the end of the 2-week period. In the notice, state what caused the absence and what you are doing to ensure that a certified chief facility operator or certified shift supervisor is onsite.

(B) Submit a status report and corrective action summary to the executive director every 4 weeks following the initial notification. If the executive director notifies you that your status report or corrective action summary is disapproved, the municipal waste combustion unit may continue operation for 90 days, but then must cease operation. If corrective actions are taken in the 90-day

period such that the executive director withdraws the disapproval, municipal waste combustion unit operation may continue.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2122. What are the operating practice requirements for my municipal waste combustion unit?**

(a) You must not operate your municipal waste combustion unit at loads greater than 110 percent of the maximum demonstrated load of the municipal waste combustion unit (4-hour block average), as specified in §113.2100 of this title (relating to Definitions).

(b) You must not operate your municipal waste combustion unit so that the temperature at the inlet of the particulate matter control device exceeds 17 degrees Celsius above the maximum demonstrated temperature of the particulate matter control device (4-hour block average), as specified in §113.2100 of this title.

(c) If your municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, you must maintain an 8-hour block average carbon feed rate at or above the highest average level established during the most recent dioxins/furans or mercury test.

(d) If your municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, you must evaluate total carbon usage for each calendar quarter. The total amount of carbon purchased and delivered to your municipal waste combustion plant must be at or above the required quarterly usage of carbon. At your option, you may choose to evaluate required quarterly carbon usage on a municipal waste combustion unit basis for each individual municipal waste combustion unit at your plant. Calculate the required quarterly usage of carbon using equation 4 or 5 in §113.2171(f) of this title (relating to What equations must I use?).

(e) Your municipal waste combustion unit is exempt from limits on load level, temperature at the inlet of the particulate matter control device, and carbon feed rate during any of five situations:

(1) During your annual tests for dioxins/furans.

(2) During your annual mercury tests (for carbon feed rate requirements only).

(3) During the 2 weeks preceding your annual tests for dioxins/furans.

(4) During the 2 weeks preceding your annual mercury tests (for carbon feed rate requirements only).

(5) Whenever the executive director permits you to do any of five activities:

(A) Evaluate system performance.

(B) Test new technology or control technologies.

(C) Perform diagnostic testing.

(D) Perform other activities to improve the performance of your municipal waste combustion unit.

(E) Perform other activities to advance the state of the art for emission controls for your municipal waste combustion unit.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2123. What happens to the operating requirements during periods of startup, shutdown, and malfunction?**

(a) The operating requirements of this division apply at all times except during periods of municipal waste combustion unit startup, shutdown, or malfunction.

(b) Each startup, shutdown, or malfunction must not last for longer than 3 hours.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2124. What pollutants are regulated by this division?**

Eleven pollutants, in four groupings, are regulated:

(1) Organics. Dioxins/furans.

(2) Metals.

(A) Cadmium.

(B) Lead.

(C) Mercury.

(D) Opacity.

(E) Particulate matter.

(3) Acid gases.

(A) Hydrogen chloride.

(B) Nitrogen oxides.

(C) Sulfur dioxide.

(4) Other.

(A) Carbon monoxide.

(B) Fugitive ash.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2125. What emission limits must I meet? By when?**

(a) After the date the initial stack test and continuous emission monitoring system evaluation are required or completed (whichever is earlier), you must meet the applicable emission limits specified in the four tables of this division:

(1) For Class I units, see Tables 2 and 3 in §113.2174 of this title (relating to Tables Relating to Division 3).

(2) For Class II units, see Table 4 in §113.2174 of this title.

(3) For carbon monoxide emission limits for both classes of units, see Table 5 in §113.2174 of this title.

(b) If your Class I municipal waste combustion unit began construction, reconstruction, or modification after June 26, 1987, then you must comply with the dioxins/furans and mercury emission limits specified in Table 2 in §113.2174 of this title as applicable by the later of the following two dates:

(1) One year after the effective date of state plan approval.

(2) One year after the issuance of a revised construction or operating permit, if a permit modification is required. Final compliance with the dioxins/furans limits must be achieved no later than December 6, 2005, even if the date 1 year after the issuance of a revised construction or operating permit is later than December 6, 2005.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2126. What happens to the emission limits during periods of startup, shutdown, and malfunction?**

(a) The emission limits of this division apply at all times except during periods of municipal waste combustion unit startup, shutdown, or malfunction.

(b) Each startup, shutdown, or malfunction must not last for longer than 3 hours.

(c) A maximum of 3 hours of test data can be dismissed from compliance calculations during periods of startup, shutdown, or malfunction.

(d) During startup, shutdown, or malfunction periods longer than 3 hours, emissions data cannot be discarded from compliance calculations and all provisions under 40 Code of Federal Regulations §60.11(d) apply.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2127. What types of continuous emission monitoring must I perform?**

To continuously monitor emissions, you must perform four tasks:

(1) Install continuous emission monitoring systems for certain gaseous pollutants.

(2) Make sure your continuous emission monitoring systems are operating correctly.

(3) Make sure you obtain the minimum amount of monitoring data.

(4) Install a continuous opacity monitoring system.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2128. What continuous emission monitoring systems must I install for gaseous pollutants?**

(a) You must install, calibrate, maintain, and operate continuous emission monitoring systems for oxygen (or carbon dioxide), sulfur dioxide, and carbon monoxide. If you operate a Class I municipal waste combustion unit, also install, calibrate, maintain, and operate a continuous emission monitoring system for nitrogen oxides. Install the continuous emission monitoring systems for sulfur dioxide, nitrogen oxides, and oxygen (or carbon dioxide) at the outlet of the air pollution control device.

(b) You must install, evaluate, and operate each continuous emission monitoring system according to the "Monitoring Requirements" in 40 Code of Federal Regulations (CFR) §60.13.

(c) You must monitor the oxygen (or carbon dioxide) concentration at each location where you monitor sulfur dioxide and carbon monoxide. Additionally, if you operate a Class I municipal waste combustion unit, you must also monitor the oxygen (or carbon dioxide) concentration at the location where you monitor nitrogen oxides.

(d) You may choose to monitor carbon dioxide instead of oxygen as a diluent gas. If you choose to monitor carbon dioxide, then an oxygen monitor is not required and you must follow the requirements in §113.2133 of this title (relating to What must I do if I choose to monitor carbon dioxide instead of oxygen as a diluent gas?).

(e) If you choose to demonstrate compliance by monitoring the percent reduction of sulfur dioxide, you must also install continuous emission monitoring systems for sulfur dioxide and oxygen (or carbon dioxide) at the inlet of the air pollution control device.

(f) If you prefer to use an alternative sulfur dioxide monitoring method, such as parametric monitoring, or cannot monitor emissions at the inlet of the air pollution control device to determine percent reduction, you can apply to the executive director for approval to use an alternative monitoring method under 40 CFR §60.13(i).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2129. How are the data from the continuous emission monitoring systems used?**

You must use data from the continuous emission monitoring systems for sulfur dioxide, nitrogen oxides, and carbon monoxide to demonstrate continuous compliance with the applicable emission limits specified in Tables 2, 3, 4, and 5 in §113.2174 of this title (relating to Tables Relating to Division 3). To demonstrate compliance for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash, see §113.2140 of this title (relating to How are the stack test data used?).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2130. How do I make sure my continuous emission monitoring systems are operating correctly?**

(a) Conduct initial, daily, quarterly, and annual evaluations of your continuous emission monitoring systems that measure oxygen (or carbon dioxide), sulfur dioxide, nitrogen oxides (Class I municipal waste combustion units only), and carbon monoxide.

(b) Complete your initial evaluation of the continuous emission monitoring systems within 180 days after your final compliance date.

(c) For initial and annual evaluations, collect data concurrently (or within 30 to 60 minutes) using your oxygen (or carbon dioxide) continuous emission monitoring system, your sulfur dioxide, nitrogen oxides, or carbon monoxide continuous emission monitoring systems, as appropriate, and the appropriate test methods specified in Table 6 in §113.2174 of this title (relating to Tables Relating to Division 3). Collect the data during each initial and annual evaluation of your continuous emission monitoring systems following the applicable performance specifications in 40 Code of Federal Regulations (CFR) Part 60, Appendix B. Table 7 in §113.2174 of this title shows the performance specifications that apply to each continuous emission monitoring system.

(d) Follow the quality assurance procedures in Procedure 1 of 40 CFR Part 60, Appendix F for each continuous emission monitoring system. The procedures include daily calibration drift and quarterly accuracy determinations.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2131. Am I exempt from any 40 Code of Federal Regulations Part 60, Appendix B or Appendix F requirements to evaluate continuous emission monitoring systems?**

Yes, the accuracy tests for your sulfur dioxide continuous emission monitoring system require you to also evaluate your oxygen (or carbon dioxide) continuous emission monitoring system. Therefore, your oxygen (or carbon dioxide) continuous emission monitoring system is exempt from two requirements:

(1) Section 2.3 of Performance Specification 3 in 40 Code of Federal Regulations Part 60, Appendix B (relative accuracy requirement).

(2) Section 5.1.1 of 40 Code of Federal Regulations Part 60, Appendix F (relative accuracy test audit).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2132. What is my schedule for evaluating continuous emission monitoring systems?**

(a) Conduct annual evaluations of your continuous emission monitoring systems no more than 13 months after the previous evaluation was conducted.

(b) Evaluate your continuous emission monitoring systems daily and quarterly as specified in 40 Code of Federal Regulations Part 60, Appendix F.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2133. What must I do if I choose to monitor carbon dioxide instead of oxygen as a diluent gas?**

You must establish the relationship between oxygen and carbon dioxide during the initial evaluation of your continuous emission monitoring systems. You may reestablish the relationship during annual evaluations. To establish the relationship use three procedures:

(1) Use United States Environmental Protection Agency (EPA) Reference Method 3A or 3B in 40 Code of Federal Regulations (CFR) Part 60, Appendix A to determine oxygen concentration at the location of your carbon dioxide monitor.

(2) Conduct at least three test runs for oxygen. Make sure each test run represents a 1-hour average and that sampling continues for at least 30 minutes in each hour.

(3) Use the fuel-factor equation in EPA Reference Method 3B in 40 CFR Part 60, Appendix A to determine the relationship between oxygen and carbon dioxide.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2134. What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems and is the data collection requirement enforceable?**

(a) Where continuous emission monitoring systems are required, obtain 1-hour arithmetic averages. Make sure the averages for sulfur dioxide, nitrogen oxides (Class I municipal waste combustion units only), and carbon monoxide are in parts per million by dry volume at 7 percent oxygen (or the equivalent carbon dioxide level). Use the 1-hour averages of oxygen (or carbon dioxide) data from your continuous emission monitoring system to determine the actual oxygen (or carbon dioxide) level and to calculate emissions at 7 percent oxygen (or the equivalent carbon dioxide level).

(b) Obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic average. 40 Code of Federal Regulations §60.13(e)(2) requires your continuous emission monitoring systems to complete at least one cycle of operation (sampling, analyzing, and data recording) for each 15-minute period.

(c) Obtain valid 1-hour averages for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal solid waste or refuse-derived fuel.

(d) If you do not obtain the minimum data required in subsections (a) through (c) of this section, you are in violation of the data collection requirement regardless of the emission level monitored, and you must notify the executive director according to §113.2161(5) of this title (relating to What must I include in my annual report?).

(e) If you do not obtain the minimum data required in subsections (a) through (c) of this section, you must still use all valid data from the continuous emission monitoring systems in calculating emission concentrations and percent reductions in accordance with §113.2135 of this title (relating to How do I convert my 1-hour arithmetic averages into appropriate averaging times and units?).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2135. How do I convert my 1-hour arithmetic averages into appropriate averaging times and units?**

(a) Use the equation in §113.2171(a) of this title (relating to What equations must I use?) to calculate emissions at 7 percent oxygen.

(b) Use United States Environmental Protection Agency (EPA) Reference Method 19 in 40 Code of Federal Regulations (CFR) Part 60, Appendix A, §4.3, to calculate the daily geometric average concentrations of sulfur dioxide emissions. If you are monitoring the percent reduction of sulfur dioxide, use EPA Reference Method 19 in 40 CFR Part 60, Appendix A, §5.4, to determine the daily geometric average percent reduction of potential sulfur dioxide emissions.

(c) If you operate a Class I municipal waste combustion unit, use EPA Reference Method 19 in 40 CFR Part 60, Appendix A, §4.1, to calculate the daily arithmetic average for concentrations of nitrogen oxides.

(d) Use EPA Reference Method 19 in 40 CFR Part 60, Appendix A, §4.1, to calculate the 4-hour or 24-hour daily block averages (as applicable) for concentrations of carbon monoxide.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2136. What is required for my continuous opacity monitoring system and how are the data used?**

(a) Install, calibrate, maintain, and operate a continuous opacity monitoring system.

(b) Install, evaluate, and operate each continuous opacity monitoring system according to 40 Code of Federal Regulations (CFR) §60.13.

(c) Complete an initial evaluation of your continuous opacity monitoring system according to Performance Specification 1 in 40 CFR Part 60, Appendix B. Complete the evaluation by 180 days after your final compliance date.

(d) Complete each annual evaluation of your continuous opacity monitoring system no more than 13 months after the previous evaluation.

(e) Use tests conducted according to United States Environmental Protection Agency Reference Method 9 in 40 CFR Part 60, Appendix A, as specified in §113.2142 of this title (relating to What test methods must I use to stack test?), to determine compliance with the opacity limit in Table 2 or 4 in §113.2174 of this title (relating to Tables Relating to Division 3). The data obtained from your continuous opacity monitoring system are not used to determine compliance with the opacity limit.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2137. What additional requirements must I meet for the operation of my continuous emission monitoring systems and continuous opacity monitoring system?**

Use the required span values and applicable performance specifications in Table 8 in §113.2174 of this title (relating to Tables Relating to Division 3).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2138. What must I do if any of my continuous emission monitoring systems are temporarily unavailable to meet the data collection requirements?**

Refer to Table 8 in §113.2174 of this title (relating to Tables Relating to Division 3). It shows alternate methods for collecting data when systems malfunction or when repairs, calibration checks, or zero and span checks keep you from collecting the minimum amount of data.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2139. What types of stack tests must I conduct?**

Conduct initial and annual stack tests to measure the emission levels of dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2140. How are the stack test data used?**

You must use results of stack tests for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash to demonstrate compliance with the applicable emission limits in Tables 2 and 4 in §113.2174 of this title (relating to Tables Relating to Division 3). To demonstrate compliance for carbon monoxide, nitrogen oxides, and sulfur dioxide, see §113.2129 of this title (relating to How are the data from the continuous emission monitoring systems used?).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2141. What schedule must I follow for the stack testing?**

(a) Conduct initial stack tests for the pollutants listed in §113.2139 of this title (relating to What types of stack tests must I conduct?) by 180 days after your final compliance date.

(b) Conduct annual stack tests for the same pollutants after the initial stack test. Conduct each annual stack test no later than 13 months after the previous stack test.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2142. What test methods must I use to stack test?**

(a) Follow Table 8 in §113.2174 of this title (relating to Tables Relating to Division 3) to establish the sampling location and to determine pollutant concentrations, number of traverse points, individual test methods, and other specific testing requirements for the different pollutants.

(b) Make sure that stack tests for all the pollutants consist of at least three test runs, as specified in 40 Code of Federal Regulations (CFR) §60.8. Use the average of the pollutant emission concentrations from the three test runs to determine compliance with the applicable emission limits in Tables 2 and 4 in §113.2174 of this title.

(c) Obtain an oxygen (or carbon dioxide) measurement at the same time as your pollutant measurements to determine diluent gas levels, as specified in §113.2128 of this title (relating to What continuous emission monitoring systems must I install for gaseous pollutants?).

(d) Use the equations in §113.2171(a) of this title (relating to What equations must I use?) to calculate emission levels at 7 percent oxygen (or an equivalent carbon dioxide basis), the percent reduction in potential hydrogen chloride emissions, and the reduction efficiency for mercury emissions. See the individual test methods in Table 6 in §113.2174 of this title for other required equations.

(e) You can apply to the executive director for approval under 40 CFR §60.8(b) to use a reference method with minor changes in methodology, use an equivalent method, use an alternative method the results of which the executive director has determined are adequate for demonstrating compliance, waive the requirement for a performance test because you have demonstrated by other means that you are in compliance, or use a shorter sampling time or smaller sampling volume.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2143. May I conduct stack testing less often?**

(a) You may test less often if you own or operate a Class II municipal waste combustion unit and if all stack tests for a given pollutant over 3 consecutive years show you comply with the emission limit. In that case, you are not required to conduct a stack test for that pollutant for the next 2 years. However, you must conduct another stack test within 36 months of the anniversary date of the third consecutive stack test that shows you comply with the emission limit. Thereafter, you must perform stack tests every 3rd year but no later than 36 months following the previous stack tests. If a stack test shows noncompliance with an emission limit, you must conduct annual stack tests for that pollutant until all stack tests over 3 consecutive years show compliance with the emission limit for that pollutant. The provision applies to all pollutants subject to stack testing requirements: dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash.

(b) You can test less often for dioxins/furans emissions if you own or operate a municipal waste combustion plant that meets two conditions. First, you have multiple municipal waste combustion units onsite that are subject to this division. Second, all those municipal waste combustion units have demonstrated levels of dioxins/furans emissions less than or equal to 15 nanograms per dry standard cubic meter (total mass) for Class I units, or 30 nanograms per dry standard cubic meter (total mass) for Class II units, for 2 consecutive years. In that case, you may choose to conduct annual stack tests on only one municipal waste combustion unit per year at your plant. The provision only applies to stack testing for dioxins/furans emissions.

(1) Conduct the stack test no more than 13 months following a stack test on any municipal waste combustion unit subject to this division at your plant. Each year, test a different municipal waste combustion unit subject to this division and test all municipal waste combustion units subject to this division in a sequence that you determine. Once you determine a testing sequence, it must not be changed without approval by the executive director.

(2) If each annual stack test shows levels of dioxins/furans emissions less than or equal to 15 nanograms per dry standard cubic meter (total mass) for Class I units, or 30 nanograms per dry standard cubic meter (total mass) for Class II units, you may continue stack tests on only one municipal waste combustion unit subject to this division per year.

(3) If any annual stack test indicates levels of dioxins/furans emissions greater than 15 nanograms per dry standard cubic meter (total mass) for Class I units, or 30 nanograms per dry standard cubic meter (total mass) for Class II units, conduct subsequent annual stack tests on all municipal waste combustion units subject to this division at your plant. You may return to testing one municipal waste combustion unit subject to this division per year if you can demonstrate dioxins/furans emissions levels less than or equal to 15 nanograms per dry standard cubic meter (total mass) for Class I units, or 30 nanograms per dry standard cubic meter (total mass) for Class II units, for all municipal waste combustion units at your plant subject to this division for 2 consecutive years.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2144. May I deviate from the 13-month testing schedule if unforeseen circumstances arise?**

You may not deviate from the 13-month testing schedules specified in §113.2141(b) and §113.2143(b)(1) of this title (relating to What schedule must I follow for the stack testing? and May I conduct stack testing less often?) unless you apply to the executive director for an alternative schedule, and the executive director approves your request for alternate scheduling prior to the date on which you would otherwise have been required to conduct the next stack test.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2145. Must I meet other requirements for continuous monitoring?**

You must also monitor three operating parameters:

(1) Load level of each municipal waste combustion unit.

(2) Temperature of flue gases at the inlet of your particulate matter air pollution control device.

(3) Carbon feed rate if activated carbon is used to control dioxins/furans or mercury emissions.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2146. How do I monitor the load of my municipal waste combustion unit?**

(a) If your municipal waste combustion unit generates steam, you must install, calibrate, maintain, and operate a steam flowmeter or a feed water flowmeter and meet five requirements:

(1) Continuously measure and record the measurements of steam (or feed water) in kilograms (or pounds) per hour.

(2) Calculate your steam (or feed water) flow in 4-hour block averages.

(3) Calculate the steam (or feed water) flow rate using the method in "American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1 - 1964 (R1991)," section 4 (incorporated by reference in 40 Code of Federal Regulations (CFR) §60.17(h)(2)).

(4) Design, construct, install, calibrate, and use nozzles or orifices for flow rate measurements, using the recommendations in "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters," 6th Edition (1971), chapter 4 (incorporated by reference in 40 CFR §60.17(h)(3)).

(5) Before each dioxins/furans stack test, or at least once a year, calibrate all signal conversion elements associated with steam (or feed water) flow measurements according to the manufacturer instructions.

(b) If your municipal waste combustion units do not generate steam, or, if your municipal waste combustion units have shared steam systems and steam load cannot be estimated per unit, you must determine, to the satisfaction of the executive director, one or more operating parameters that can be used to continuously estimate load level (for example, the feed rate of municipal solid waste or refuse-derived fuel). You must continuously monitor the selected parameters.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2147. How do I monitor the temperature of flue gases at the inlet of my particulate matter control device?**

You must install, calibrate, maintain, and operate a device to continuously measure the temperature of the flue gas stream at the inlet of each particulate matter control device.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2148. How do I monitor the injection rate of activated carbon?**

If your municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, you must meet three requirements:

(1) Select a carbon injection system operating parameter that can be used to calculate carbon feed rate (for example, screw feeder speed).

(2) During each dioxins/furans and mercury stack test, determine the average carbon feed rate in kilograms (or pounds) per hour. Also, determine the average operating parameter level that

correlates to the carbon feed rate. Establish a relationship between the operating parameter and the carbon feed rate in order to calculate the carbon feed rate based on the operating parameter level.

(3) Continuously monitor the selected operating parameter during all periods when the municipal waste combustion unit is operating and combusting waste and calculate the 8-hour block average carbon feed rate in kilograms (or pounds) per hour, based on the selected operating parameter. When calculating the 8-hour block average, do two things:

(A) Exclude hours when the municipal waste combustion unit is not operating.

(B) Include hours when the municipal waste combustion unit is operating but the carbon feed system is not working correctly.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2149. What is the minimum amount of monitoring data I must collect with my continuous parameter monitoring systems and is the data collection requirement enforceable?**

(a) Where continuous parameter monitoring systems are used, obtain 1-hour arithmetic averages for three parameters:

(1) Load level of the municipal waste combustion unit.

(2) Temperature of the flue gases at the inlet of your particulate matter control device.

(3) Carbon feed rate if activated carbon is used to control dioxins/furans or mercury emissions.

(b) Obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic average.

(c) Obtain valid 1-hour averages for at least 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal solid waste or refuse-derived fuel.

(d) If you do not obtain the minimum data required in subsections (a) through (c) of this section, you are in violation of the data collection requirement, and you must notify the executive director according to §113.2161(5) of this title (relating to What must I include in my annual report?).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2150. What records must I keep?**

You must keep four types of records:

(1) Operator training and certification.

(2) Stack tests.

(3) Continuously monitored pollutants and parameters.

(4) Carbon feed rate.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2151. Where must I keep my records and for how long?**

(a) Keep all records onsite in paper copy or electronic format unless the executive director approves another format.

(b) Keep all records on each municipal waste combustion unit for at least 5 years.

(c) Make all records available for submittal to the executive director, or for onsite review by an inspector.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2152. What records must I keep for operator training and certification?**

You must keep records of six items:

(1) Records of provisional certifications. Include three items:

(A) For your municipal waste combustion plant, names of the chief facility operator, shift supervisors, and control room operators who are provisionally certified by the American Society of Mechanical Engineers or an equivalent state-approved certification program.

(B) Dates of the initial provisional certifications.

(C) Documentation showing current provisional certifications.

(2) Records of full certifications. Include three items:

(A) For your municipal waste combustion plant, names of the chief facility operator, shift supervisors, and control room operators who are fully certified by the American Society of Mechanical Engineers or an equivalent state-approved certification program.

(B) Dates of initial and renewal full certifications.

(C) Documentation showing current full certifications.

(3) Records showing completion of the operator training course. Include three items:

(A) For your municipal waste combustion plant, names of the chief facility operator, shift supervisors, and control room operators who have completed the United States Environmental Protection Agency or state municipal waste combustion operator training course.

(B) Dates of completion of the operator training course.

(C) Documentation showing completion of operator training course.

(4) Records of reviews for plant-specific operating manuals. Include three items:

(A) Names of persons who have reviewed the operating manual.

(B) Date of the initial review.

(C) Dates of subsequent annual reviews.

(5) Records of when a certified operator is temporarily offsite. Include two main items:

(A) If the certified chief facility operator and certified shift supervisor are offsite for more than 12 hours, but for 2 weeks or less, and no other certified operator is onsite, record the dates that the certified chief facility operator and certified shift supervisor were offsite.

(B) When all certified chief facility operators and certified shift supervisors are offsite for more than 2 weeks and no other certified operator is onsite, keep records of four items:

(i) Your notice that all certified persons are offsite.

(ii) The conditions that cause those people to be offsite.

(iii) The corrective actions you are taking to ensure a certified chief facility operator or certified shift supervisor is onsite.

(iv) Copies of the written reports submitted every 4 weeks that summarize the actions taken to ensure that a certified chief facility operator or certified shift supervisor will be onsite.

(6) Records of calendar dates. Include the calendar date on each record.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2153. What records must I keep for stack tests?**

For stack tests required under §113.2139 of this title (relating to What types of stack tests must I conduct?), you must keep records of four items:

(1) The results of the stack tests for eight pollutants or parameters recorded in the appropriate units of measure specified in Table 2 or 4 in §113.2174 of this title (relating to Tables Relating to Division 3):

(A) Dioxins/furans.

(B) Cadmium.

(C) Lead.

(D) Mercury.

(E) Opacity.

(F) Particulate matter.

(G) Hydrogen chloride.

(H) Fugitive ash.

(2) Test reports including supporting calculations that document the results of all stack tests.

(3) The maximum demonstrated load of your municipal waste combustion units and maximum temperature at the inlet of your particulate matter control device during all stack tests for dioxins/furans emissions.

(4) The calendar date of each record.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2154. What records must I keep for continuously monitored pollutants or parameters?**

You must keep records of eight items.

(1) Records of monitoring data. Document six parameters measured using continuous monitoring systems:

(A) All 6-minute average levels of opacity.

(B) All 1-hour average concentrations of sulfur dioxide emissions.

(C) For Class I municipal waste combustion units only, all 1-hour average concentrations of nitrogen oxides emissions.

(D) All 1-hour average concentrations of carbon monoxide emissions.

(E) All 1-hour average load levels of your municipal waste combustion unit.

(F) All 1-hour average flue gas temperatures at the inlet of the particulate matter control device.

(2) Records of average concentrations and percent reductions. Document five parameters:

(A) All 24-hour daily block geometric average concentrations of sulfur dioxide emissions or average percent reductions of sulfur dioxide emissions.

(B) For Class I municipal waste combustion units only, all 24-hour daily arithmetic average concentrations of nitrogen oxides emissions.

(C) All 4-hour block or 24-hour daily block arithmetic average concentrations of carbon monoxide emissions.

(D) All 4-hour block arithmetic average load levels of your municipal waste combustion unit.

(E) All 4-hour block arithmetic average flue gas temperatures at the inlet of the particulate matter control device.

(3) Records of exceedances. Document three items:

(A) Calendar dates whenever any of the five pollutant or parameter levels recorded in paragraph (2) of this section or the opacity level recorded in paragraph (1)(A) of this section did not meet the emission limits or operating levels specified in this division.

(B) Reasons you exceeded the applicable emission limits or operating levels.

(C) Corrective actions you took, or are taking, to meet the emission limits or operating levels.

(4) Records of minimum data. Document three items:

(A) Calendar dates for which you did not collect the minimum amount of data required under §113.2134 and §113.2149 of this title (relating to What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems and is the data collection requirement enforceable? and What is the minimum amount of data I must collect with my continuous parameter monitoring systems and is the data collection requirement enforceable?). Record those dates for five types of pollutants and parameters:

(i) Sulfur dioxide emissions.

(ii) For Class I municipal waste combustion units only, nitrogen oxides emissions.

(iii) Carbon monoxide emissions.

(iv) Load levels of your municipal waste combustion unit.

(v) Temperatures of the flue gases at the inlet of the particulate matter control device.

(B) Reasons you did not collect the minimum data.

(C) Corrective actions you took or are taking to obtain the required amount of data.

(5) Records of exclusions. Document each time you have excluded data from your calculation of averages for any of the following five pollutants or parameters and the reasons the data were excluded:

(A) Sulfur dioxide emissions.

(B) For Class I municipal waste combustion units only, nitrogen oxides emissions.

(C) Carbon monoxide emissions.

(D) Load levels of your municipal waste combustion unit.

(E) Temperatures of the flue gases at the inlet of the particulate matter control device.

(6) Records of drift and accuracy. Document the results of your daily drift tests and quarterly accuracy determinations according to Procedure 1 of 40 Code of Federal Regulations Part 60, Appendix F. Keep those records for the sulfur dioxide, nitrogen oxides (Class I municipal waste combustion units only), and carbon monoxide continuous emissions monitoring systems.

(7) Records of the relationship between oxygen and carbon dioxide. If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, document the relationship between oxygen and carbon dioxide, as specified in §113.2133 of this title (relating to What must I do if I choose to monitor carbon dioxide instead of oxygen as a diluent gas?).

(8) Records of calendar dates. Include the calendar date on each record.

**§113.2155. What records must I keep for municipal waste combustion units that use activated carbon?**

For municipal waste combustion units that use activated carbon to control dioxins/furans or mercury emissions, you must keep records of five items:

(1) Records of average carbon feed rate. Document five items:

(A) Average carbon feed rate in kilograms (or pounds) per hour during all stack tests for dioxins/furans and mercury emissions. Include supporting calculations in the records.

(B) For the operating parameter chosen to monitor carbon feed rate, average operating level during all stack tests for dioxins/furans and mercury emissions. Include supporting data that document the relationship between the operating parameter and the carbon feed rate.

(C) All 8-hour block average carbon feed rates in kilograms (or pounds) per hour calculated from the monitored operating parameter.

(D) Total carbon purchased and delivered to the municipal waste combustion plant for each calendar quarter. If you choose to evaluate total carbon purchased and delivered on a municipal waste combustion unit basis, record the total carbon purchased and delivered for each individual municipal waste combustion unit at your plant. Include supporting documentation.

(E) Required quarterly usage of carbon for the municipal waste combustion plant, calculated using equation 4 or 5 in §113.2171(f) of this title (relating to What equations must I use?). If you choose to evaluate required quarterly usage for carbon on a municipal waste combustion unit basis, record the required quarterly usage for each municipal waste combustion unit at your plant. Include supporting calculations.

(2) Records of low carbon feed rates. Document three items:

(A) The calendar dates when the average carbon feed rate over an 8-hour block was less than the average carbon feed rates determined during the most recent stack test for dioxins/furans or mercury emissions (whichever has a higher feed rate).

(B) Reasons for the low carbon feed rates.

(C) Corrective actions you took or are taking to meet the 8-hour average carbon feed rate requirement.

(3) Records of minimum carbon feed rate data. Document three items:

(A) Calendar dates for which you did not collect the minimum amount of carbon feed rate data required under §113.2149 of this title (relating to What is the minimum amount of monitoring data I must collect with my continuous parameter monitoring systems and is the data collection requirement enforceable?).

(B) Reasons you did not collect the minimum data.

(C) Corrective actions you took or are taking to get the required amount of data.

(4) Records of exclusions. Document each time you have excluded data from your calculation of average carbon feed rates and the reasons the data were excluded.

(5) Records of calendar dates. Include the calendar date on each record.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2156. What reports must I submit and in what form?**

(a) Submit an initial report and annual reports, plus semiannual reports for any emission or parameter level that does not meet the limits specified in this division.

(b) Submit all reports on paper, postmarked on or before the submittal dates in §§113.2158, 113.2160, and 113.2163 of this title (relating to When must I submit the initial report?, When must I submit the annual report?, and If a semiannual report is required, when must I submit it?). If the executive director agrees, you may submit electronic reports, as specified in Chapter 19 of this title (relating to Electronic Reporting).

(c) Keep a copy of all reports required by §§113.2159, 113.2161, and 113.2164 of this title (relating to What must I include in my initial report?, What must I include in my annual report?, and What must I include in the semiannual out-of-compliance reports?) onsite for 5 years.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2157. What are the appropriate units of measurement for reporting my data?**

See Tables 2, 3, 4, and 5 in §113.2174 of this title (relating to Tables Relating to Division 3) for appropriate units of measurement.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2158. When must I submit the initial report?**

As specified in 40 Code of Federal Regulations §60.7(c), submit your initial report by 180 days after your final compliance date.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2159. What must I include in my initial report?**

You must include seven items:

(1) The emission levels measured on the date of the initial evaluation of your continuous emission monitoring systems for all of the following five pollutants or parameters as recorded in accordance with §113.2154(2) of this title (relating to What records must I keep for continuously monitored pollutants or parameters?).

(A) The 24-hour daily geometric average concentration of sulfur dioxide emissions or the 24-hour daily geometric percent reduction of sulfur dioxide emissions.

(B) For Class I municipal waste combustion units only, the 24-hour daily arithmetic average concentration of nitrogen oxides emissions.

(C) The 4-hour block or 24-hour daily arithmetic average concentration of carbon monoxide emissions.

(D) The 4-hour block arithmetic average load level of your municipal waste combustion unit.

(E) The 4-hour block arithmetic average flue gas temperature at the inlet of the particulate matter control device.

(2) The results of the initial stack tests for eight pollutants or parameters (use appropriate units as specified in Table 2 or 4 in §113.2174 of this title (relating to Tables Relating to Division 3)):

(A) Dioxins/furans.

(B) Cadmium.

(C) Lead.

(D) Mercury.

(E) Opacity.

(F) Particulate matter.

(G) Hydrogen chloride.

(H) Fugitive ash.

(3) The test report that documents the initial stack tests including supporting calculations.

(4) The initial performance evaluation of your continuous emissions monitoring systems. Use the applicable performance specifications in 40 Code of Federal Regulations Part 60, Appendix B in conducting the evaluation.

(5) The maximum demonstrated load of your municipal waste combustion unit and the maximum demonstrated temperature of the flue gases at the inlet of the particulate matter control device. Use values established during your initial stack test for dioxins/furans emissions and include supporting calculations.

(6) If your municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, the average carbon feed rates that you recorded during the initial stack tests for dioxins/furans and mercury emissions. Include supporting calculations as specified in §113.2155(1)(A) and (B) of this title (relating to What records must I keep for municipal waste combustion units that use activated carbon?).

(7) If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, documentation of the relationship between oxygen and carbon dioxide, as specified in §113.2133 of this title (relating to What must I do if I choose to monitor carbon dioxide instead of oxygen as a diluent gas?).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2160. When must I submit the annual report?**

Submit the annual report no later than February 1 of each year that follows the calendar year in which you collected the data. If you have an operating permit for any unit under Title V of the Federal Clean Air Act, the permit may require you to submit semiannual reports. Title 40 Code of Federal Regulations Part 70 contains program requirements for permits.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2161. What must I include in my annual report?**

Summarize data collected for all pollutants and parameters regulated under this division. Your summary must include twelve items:

(1) The results of the annual stack test, using appropriate units, for eight pollutants, as recorded under §113.2153(1) of this title (relating to What records must I keep for stack tests?):

(A) Dioxins/furans.

(B) Cadmium.

(C) Lead.

(D) Mercury.

(E) Opacity.

(F) Particulate matter.

(G) Hydrogen chloride.

(H) Fugitive ash.

(2) A list of the highest average levels recorded, in the appropriate units. List those values for five pollutants or parameters:

(A) Sulfur dioxide emissions.

(B) For Class I municipal waste combustion units only, nitrogen oxides emissions.

(C) Carbon monoxide emissions.

(D) Load level of the municipal waste combustion unit.

(E) Temperature of the flue gases at the inlet of the particulate matter air pollution control device (4-hour block average).

(3) The highest 6-minute opacity level measured. Base the value on all 6-minute average opacity levels recorded by your continuous opacity monitoring system (§113.2154(1)(A) of this title (relating to What records must I keep for continuously monitored pollutants or parameters?)).

(4) For municipal waste combustion units that use activated carbon for controlling dioxins/furans or mercury emissions, include four records:

(A) The average carbon feed rates recorded during the most recent dioxins/furans and mercury stack tests.

(B) The lowest 8-hour block average carbon feed rate recorded during the year.

(C) The total carbon purchased and delivered to the municipal waste combustion plant for each calendar quarter. If you choose to evaluate total carbon purchased and delivered on a municipal waste combustion unit basis, record the total carbon purchased and delivered for each individual municipal waste combustion unit at your plant.

(D) The required quarterly carbon usage of your municipal waste combustion plant calculated using equation 4 or 5 in §113.2171(f) of this title (relating to What equations must I

use?). If you choose to evaluate required quarterly usage for carbon on a municipal waste combustion unit basis, record the required quarterly usage for each municipal waste combustion unit at your plant.

(5) The total number of days that you did not obtain the minimum number of hours of data for six pollutants or parameters. Include the reasons you did not obtain the data and corrective actions that you have taken to obtain the data in the future. Include data on:

(A) Sulfur dioxide emissions.

(B) For Class I municipal waste combustion units only, nitrogen oxides emissions.

(C) Carbon monoxide emissions.

(D) Load level of the municipal waste combustion unit.

(E) Temperature of the flue gases at the inlet of the particulate matter air pollution control device.

(F) Carbon feed rate.

(6) The number of hours you have excluded data from the calculation of average levels (include the reasons for excluding it). Include data for six pollutants or parameters:

(A) Sulfur dioxide emissions.

(B) For Class I municipal waste combustion units only, nitrogen oxides emissions.

(C) Carbon monoxide emissions.

(D) Load level of the municipal waste combustion unit.

(E) Temperature of the flue gases at the inlet of the particulate matter air pollution control device.

(F) Carbon feed rate.

(7) A notice of your intent to begin a reduced stack testing schedule for dioxins/furans emissions during the following calendar year if you are eligible for alternative scheduling (§113.2143(a) or (b) of this title (relating to May I conduct stack testing less often?)).

(8) A notice of your intent to begin a reduced stack testing schedule for other pollutants during the following calendar year if you are eligible for alternative scheduling (§113.2143(a) of this title).

(9) A summary of any emission or parameter level that did not meet the limits specified in this division.

(10) A summary of the data in paragraphs (1) through (4) of this section from the year preceding the reporting year which gives the executive director a summary of the performance of the municipal waste combustion unit over a 2-year period.

(11) If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, documentation of the relationship between oxygen and carbon dioxide, as specified in §113.2133 of this title (relating to What must I do if I choose to monitor carbon dioxide instead of oxygen as a diluent gas?).

(12) Documentation of periods when all certified chief facility operators and certified shift supervisors are offsite for more than 12 hours.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2162. What must I do if I am out of compliance with the requirements of this division?**

You must submit a semiannual report on any recorded emission or parameter level that does not meet the requirements specified in this division.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2163. If a semiannual report is required, when must I submit it?**

(a) For data collected during the first half of a calendar year, submit your semiannual report by August 1 of that year.

(b) For data you collected during the second half of the calendar year, submit your semiannual report by February 1 of the following year.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2164. What must I include in the semiannual out-of-compliance reports?**

You must include three items in the semiannual report:

(1) For any of the following six pollutants or parameters that exceeded the limits specified in this division, include the calendar date they exceeded the limits, the averaged and recorded data for that date, the reasons for exceeding the limits, and your corrective actions:

(A) Concentration or percent reduction of sulfur dioxide emissions.

(B) For Class I municipal waste combustion units only, concentration of nitrogen oxides emissions.

(C) Concentration of carbon monoxide emissions.

(D) Load level of your municipal waste combustion unit.

(E) Temperature of the flue gases at the inlet of your particulate matter air pollution control device.

(F) Average 6-minute opacity level. The data obtained from your continuous opacity monitoring system are not used to determine compliance with the limit on opacity emissions.

(2) If the results of your annual stack tests (as recorded in §113.2153(1) of this title (relating to What records must I keep for stack tests?)) show emissions above the limits specified in Table 2 or 4 in §113.2174 of this title (relating to Tables Relating to Division 3) as applicable for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash, include a copy of the test report that documents the emission levels and your corrective actions.

(3) For municipal waste combustion units that apply activated carbon to control dioxins/furans or mercury emissions, include two items:

(A) Documentation of all dates when the 8-hour block average carbon feed rate (calculated from the carbon injection system operating parameter) is less than the highest carbon feed rate established during the most recent mercury and dioxins/furans stack test (as specified in §113.2155(1)(A) of this title (relating to What records must I keep for municipal waste combustion units that use activated carbon?)). Include four items:

(i) Eight-hour average carbon feed rate.

(ii) Reasons for occurrences of low carbon feed rates.

(iii) The corrective actions you have taken to meet the carbon feed rate requirement.

(iv) The calendar date.

(B) Documentation of each quarter when total carbon purchased and delivered to the municipal waste combustion plant is less than the total required quarterly usage of carbon. If you choose to evaluate total carbon purchased and delivered on a municipal waste combustion unit basis, record the total carbon purchased and delivered for each individual municipal waste combustion unit at your plant. Include five items:

(i) Amount of carbon purchased and delivered to the plant.

(ii) Required quarterly usage of carbon.

(iii) Reasons for not meeting the required quarterly usage of carbon.

(iv) The corrective actions you have taken to meet the required quarterly usage of carbon.

(v) The calendar date.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2165. Can reporting dates be changed?**

(a) If the executive director agrees, you may change the semiannual or annual reporting dates.

(b) See 40 Code of Federal Regulations §60.19(c) for procedures to seek approval to change your reporting date.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2166. What is an air curtain incinerator?**

An air curtain incinerator operates by forcefully projecting a curtain of air across an open chamber or open pit in which combustion occurs. Incinerators of that type can be constructed above or below ground and with or without refractory walls and floor.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2167. What is yard waste?**

Yard waste is grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. They come from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include two items:

(1) Construction, renovation, and demolition wastes that are exempt from the definition of "Municipal solid waste" in §113.2100 of this title (relating to Definitions).

(2) Clean wood that is exempt from the definition of "Municipal solid waste" in §113.2100 of this title.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2168. What are the emission limits for air curtain incinerators that burn 100 percent yard waste?**

If your air curtain incinerator combusts 100 percent yard waste, you must only meet the emission limits in this section.

(1) By 180 days after your final compliance date, you must meet two limits:

(A) The opacity limit is 10 percent (6-minute average) for air curtain incinerators that can combust at least 35 tons per day of municipal solid waste and no more than 250 tons per day of municipal solid waste.

(B) The opacity limit is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.

(2) Except during malfunctions, the requirements of this division apply at all times. Each malfunction must not exceed 3 hours.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2169. How must I monitor opacity for air curtain incinerators that burn 100 percent yard waste?**

(a) Use United States Environmental Protection Agency Reference Method 9 in 40 Code of Federal Regulations (CFR) Part 60, Appendix A to determine compliance with the opacity limit.

(b) Conduct an initial test for opacity as specified in 40 CFR §60.8.

(c) After the initial test for opacity, conduct annual tests no more than 13 calendar months following the date of your previous test.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2170. What are the recordkeeping and reporting requirements for air curtain incinerators that burn 100 percent yard waste?**

(a) Provide a notice of construction that includes four items:

(1) Your intent to construct the air curtain incinerator.

(2) Your planned initial startup date.

(3) Types of fuels you plan to combust in your air curtain incinerator.

(4) The capacity of your incinerator, including supporting capacity calculations, as specified in §113.2171(d) and (e) of this title (relating to What equations must I use?).

(b) Keep records of results of all opacity tests onsite in either paper copy or electronic format unless the executive director approves another format.

(c) Keep all records for each incinerator for at least 5 years.

(d) Make all records available for submittal to the executive director or for onsite review by an inspector.

(e) Submit the results (each 6-minute average) of the opacity tests by February 1 of the year following the year of the opacity emission test.

(f) Submit reports as a paper copy on or before the applicable submittal date. If the executive director agrees, you may submit reports on electronic media.

(g) If the executive director agrees, you may change the annual reporting dates (see 40 Code of Federal Regulations §60.19(c)).

(h) Keep a copy of all reports onsite for a period of 5 years.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2171. What equations must I use?**

(a) Concentration correction to 7 percent oxygen. Correct any pollutant concentration to 7 percent oxygen using equation 1 of this section:

$$C_{7\%} = C_{unc} * (13.9) * \left( \frac{1}{(20.9 - CO_2)} \right) \quad \text{(Eq. 1)}$$

Where:
$C_{7\%}$ = concentration corrected to 7 percent oxygen.
$C_{unc}$ = uncorrected pollutant concentration.
$CO_2$ = concentration of oxygen (percent).

(b) Percent reduction in potential mercury emissions. Calculate the percent reduction in potential mercury emissions ($\%P_{Hg}$) using equation 2 of this section:

$$\%P_{Hg} = (E_i - E_o) * \left( \frac{100}{E_i} \right) \quad \text{(Eq. 2)}$$

Where:
$\%P_{Hg}$ = percent reduction of potential mercury emissions

$E_i$ = mercury emission concentration as measured at the air pollution control device inlet, corrected to 7 percent oxygen, dry basis
$E_o$ = mercury emission concentration as measured at the air pollution control device outlet, corrected to 7 percent oxygen, dry basis

(c) Percent reduction in potential hydrogen chloride emissions. Calculate the percent reduction in potential hydrogen chloride emissions ($\%P_{HCl}$) using equation 3 of this section:

$$\%P_{HCl} = (E_i - E_o) * \left( \frac{100}{E_i} \right) \text{ (Eq. 3)}$$

Where:
$\%P_{HCl}$ = percent reduction of the potential hydrogen chloride emissions
$E_i$ = hydrogen chloride emission concentration as measured at the air pollution control device inlet, corrected to 7 percent oxygen, dry basis
$E_o$ = hydrogen chloride emission concentration as measured at the air pollution control device outlet, corrected to 7 percent oxygen, dry basis

(d) Capacity of a municipal waste combustion unit. For a municipal waste combustion unit that can operate continuously for 24-hour periods, calculate the municipal waste combustion unit capacity based on 24 hours of operation at the maximum charge rate. To determine the maximum charge rate, use one of two methods:

(1) For municipal waste combustion units with a design based on heat input capacity, calculate the maximum charging rate based on the maximum heat input capacity and one of two heating values:

(A) If your municipal waste combustion unit combusts refuse-derived fuel, use a heating value of 12,800 kilojoules per kilogram (5,500 British thermal units per pound).

(B) If your municipal waste combustion unit combusts municipal solid waste, use a heating value of 10,500 kilojoules per kilogram (4,500 British thermal units per pound).

(2) For municipal waste combustion units with a design not based on heat input capacity, use the maximum designed charging rate.

(e) Capacity of a batch municipal waste combustion unit. Calculate the capacity of a batch municipal waste combustion unit as the maximum design amount of municipal solid waste it can charge per batch multiplied by the maximum number of batches it can process in 24 hours. Calculate the maximum number of batches by dividing 24 by the number of hours needed to process one batch. Retain fractional batches in the calculation. For example, if one batch requires 16 hours, the municipal waste combustion unit can combust 24/16, or 1.5 batches, in 24 hours.

(f) Quarterly carbon usage. If you use activated carbon to comply with the dioxins/furans or mercury limits, calculate the required quarterly usage of carbon using equation 4 of this section for plant basis or equation 5 of this section for unit basis:

(1) Plant basis.

$$C = \sum_{i=1}^{n} f_i * h_i \quad \text{(Eq. 4)}$$

Where:
C = required quarterly carbon usage for the plant in kilograms (or pounds).
$f_i$ = required carbon feed rate for the municipal waste combustion unit in kilograms (or pounds) per hour. That is the average carbon feed rate during the most recent mercury or dioxins/furans stack tests (whichever has a higher feed rate).
$h_i$ = number of hours the municipal waste combustion unit was in operation during the calendar quarter (hours).
n = number of municipal waste combustion units, i, located at your plant.

(2) Unit basis.

$$C = f * h \quad \text{(Eq. 5)}$$

Where:
C = required quarterly carbon usage for the unit in kilograms (or pounds).
f = required carbon feed rate for the municipal waste combustion unit in kilograms (or pounds) per hour. That is the average carbon feed rate during the most recent mercury or dioxins/furans stack tests (whichever has a higher feed rate).
h = number of hours the municipal waste combustion unit was in operation during the calendar quarter (hours).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2172. Does this subpart require me to obtain an operating permit under Title V of the Federal Clean Air Act?**

Yes. If you are subject to this division on the effective date of state plan approval or any time thereafter, you are required to apply for and obtain a Title V operating permit.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2173. When must I submit a Title V permit application for my existing small municipal waste combustion unit?**

(a) You must submit a complete Title V permit application within 12 months of when your source first becomes subject to a Title V permitting program. See 40 Code of Federal Regulations (CFR) §70.3(a) and (b) and §70.5(a)(1). As provided in the Federal Clean Air Act, §503(c), permitting authorities may establish permit application deadlines earlier than the 12-month deadline.

(b) If your existing small municipal waste combustion unit is not subject to an earlier permit application deadline, a complete Title V permit application must be submitted not later than the date 36 months after promulgation of 40 CFR Part 60, Subpart BBBB (December 6, 2003), or by the effective date of the applicable state, tribal, or federal operating permits program, whichever is later. For any existing small municipal waste combustion unit not subject to an earlier application deadline, this final application deadline applies regardless of when the federal plan is effective, or when the relevant state or tribal Federal Clean Air Act, §111(d)/129 plan is approved by the United States Environmental Protection Agency and becomes effective. See the Federal Clean Air Act, §§129(e), 503(c), 503(d), and 502(a).

(c) A "complete" Title V permit application is one that has been determined or deemed complete by the relevant permitting authority under the Federal Clean Air Act, §503(d) and 40 CFR §70.5(a)(2). You must submit a complete permit application by the relevant application deadline in order to operate after this date in compliance with federal law. See the Federal Clean Air Act, §503(d) and §502(a); 40 CFR §70.7(b).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2174. Tables Relating to Division 3.**

(a) Table 1 of this subsection specifies the compliance schedules and increments of progress for Division 3 of this subchapter.

**Table 1. Compliance Schedules and Increments of Progress**

| Affected Units | Increment 1 (Submit Final Control Plan) | Increment 2 (Award Contracts) | Increment 3 (Begin Onsite Construction) | Increment 4 (Complete Onsite Construction) | Increment 5 (Final Compliance) |
|---|---|---|---|---|---|
| 1. All Class I Units [a] [b] | Within 60 days from the date the TCEQ publishes notice in the *Texas Register* of state plan | No later than 18 months from the date the TCEQ publishes notice in the *Texas* | No later than 24 months from the date the TCEQ publishes notice in the *Texas Register* of state plan approval | No later than 34 months from the date the TCEQ publishes notice in the *Texas Register* of state plan approval | No later than 36 months from the date the TCEQ publishes notice in the *Texas Register* of state plan approval[b] |

| | | | | | |
|---|---|---|---|---|---|
| | approval | *Register* of state plan approval | | | |
| 2. All Class II Units[c] | Within 60 days from the date the TCEQ publishes notice in the *Texas Register* of state plan approval | N/A | N/A | N/A | No later than 36 months from the date the TCEQ publishes notice in the *Texas Register* of state plan approval |

[a]Class I units mean small municipal waste combustion units subject to this division that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste. See §113.2100 of this title for definitions.

[b]For Class I units that began construction, reconstruction, or modification after June 26, 1987, comply with the dioxins/furans and mercury limits by the later of two dates:

1. One year after the effective date of state plan approval.
2. One year after the issuance of a revised construction or operating permit, if a permit modification is required.
3. Final compliance with the dioxins/furans limits must be achieved no later than December 6, 2005, even if the date one year after the issuance of a revised construction or operating permit is after December 6, 2005.

[c]Class II units mean all small municipal combustion units subject to this division that are located at municipal waste combustion plants with aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste. See §113.2100 of this title for definitions.

(b) Table 2 of this subsection specifies the Class I emission limits for existing small municipal waste combustion units for Division 3 of this subchapter.

**Table 2. Class I Emission Limits for Existing Small Municipal Waste Combustion Units[a]**

| Pollutant | Emission Limits[b] | Averaging Times | Compliance Method |
|---|---|---|---|

| | | | |
|---|---|---|---|
| 1. Organics:<br>Dioxins/Furans (total mass basis) | 30 nanograms per dry standard cubic meter for municipal waste combustion units that do not employ an electrostatic precipitator-based emission control system<br>-or-<br>60 nanograms per dry standard cubic meter for municipal waste combustion units that employ an electrostatic precipitator-based emission control system | 3-run average (minimum run duration is 4 hours) | Stack test |
| 2. Metals:<br>Cadmium | 0.040 milligrams per dry standard cubic meter | 3-run average (run duration specified in test method) | Stack test |
| Lead | 0.490 milligrams per dry standard cubic meter | 3-run average (run duration specified in test method) | Stack test |
| Mercury | 0.080 milligrams per dry standard cubic meter<br>85 percent reduction of potential mercury emissions | 3-run average (run duration specified in test method) | Stack test |
| Opacity | 10 percent | Thirty 6-minute averages | Stack test |
| Particulate Matter | 27 milligrams per dry standard cubic meter | 3-run average (run duration specified in test method) | Stack test |
| 3. Acid Gases:<br>Hydrogen Chloride | 31 parts per million by dry volume 95 percent reduction of potential hydrogen chloride emissions | 3-run average (minimum run duration is 1 hour) | Stack test |
| Sulfur Dioxide | 31 parts per million by dry volume 75 percent reduction of potential sulfur dioxide emissions | 24-hour daily block geometric average concentration percent reduction | Continuous emission monitoring system |
| 4. Other:<br>Fugitive Ash | Visible emissions for no more than 5 percent of | Three 1-hour observation periods | Visible emission test |

| | | | |
|---|---|---|---|
| | hourly observation period | | |

[a]Class I units mean small municipal waste combustion units subject to this division that are located at municipal waste combustion plants with an aggregate plan combustion capacity greater than 250 tons per day of municipal solid waste. See §113.2100 of this title for definitions.

[b]All emission limits (except for opacity) are measured at 7 percent oxygen.

(c) Table 3 of this subsection specifies the Class I nitrogen oxides emission limits for existing small municipal waste combustion units for Division 3 of this subchapter.

**Table 3. Class I Nitrogen Oxides Emission Limits for Existing Small Municipal Waste Combustion Units[a,b,c]**

| Municipal Waste Combustion Technology | Limits for Class I Municipal Waste Combustion Units |
|---|---|
| 1. Mass burn waterwall | 200 parts per million by dry volume |
| 2. Mass burn rotary waterwall | 170 parts per million by dry volume |
| 3. Refuse-derived fuel | 250 parts per million by dry volume |
| 4. Fluidized bed | 220 parts per million by dry volume |
| 5. Mass burn refractory | 350 parts per million by dry volume |
| 6. Modular excess air | 190 parts per million by dry volume |
| 7. Modular starved air | 380 parts per million by dry volume |

[a]Class I units mean small municipal waste combustion units subject to this division that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste. See §113.2100 of this title for definitions.

[b]Nitrogen oxides limits are measured at 7 percent oxygen.

[c]All limits are 24-hour daily block arithmetic average concentration. Compliance is determined for Class I units by continuous emission monitoring systems.

(d) Table 4 of this subsection specifies the Class II emission limits for existing small municipal waste combustion units for Division 3 of this subchapter.

**Table 4. Class II Emission Limits for Existing Small Municipal Waste Combustion Unit[a]**

| Pollutant | Emission Limits[b] | Averaging Times | Compliance Method |
|---|---|---|---|
| 1. Organics: Dioxins/Furans (total mass basis) | 125 nanograms per dry standard cubic meter | 3-run average (minimum run duration is 4 hours) | Stack test |
| 2. Metals: Cadmium | 0.10 milligrams per dry standard cubic meter | 3-run average (run duration specified in test method) | Stack test |
| Lead | 1.6 milligrams per dry | 3-run average (run | Stack test |

| | | | |
|---|---|---|---|
| | standard cubic meter | duration specified in test method) | |
| Mercury | 0.080 milligrams per dry standard cubic meter<br><br>85 percent reduction of potential mercury emissions | 3-run average (run duration specified in test method) | Stack test |
| Opacity | 10 percent | Thirty 6-minute averages | Stack test |
| Particulate Matter | 70 milligrams per dry standard cubic meter | 3-run average (run duration specified in test method) | Stack test |
| 3. Acid Gases:<br>Hydrogen Chloride | 250 parts per million by volume<br>-or-<br>50 percent reduction of potential hydrogen chloride emissions | 3-run average (minimum run duration is 1 hour) | Stack test |
| Sulfur Dioxide | 77 parts per million by dry volume<br>-or-<br>50 percent reduction of potential sulfur dioxide emissions | 24-hour daily block geometric average concentration<br>-or-<br>percent reduction | Continuous emission monitoring system |
| 4. Other:<br>Fugitive Ash | Visible emissions for no more than 5 percent of hourly observation period | Three 1-hour observation periods | Visible emission test |

[a]Class II units mean all small municipal combustion units subject to this division that are located at municipal waste combustion plants with aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste. See §113.2100 of this title for definitions.
[b]All emission limits (except for opacity) are measured at 7 percent oxygen.

[c]No monitoring, testing, recordkeeping or reporting is required to demonstrate compliance with the nitrogen oxides limit for Class II units.

(e) Table 5 of this subsection specifies the carbon monoxide emission limits for existing small municipal waste combustion units for Division 3 of this subchapter.

**Table 5. Carbon Monoxide Emission Limits for Existing Small Municipal Waste Combustion Units**

| Municipal Waste Combustion Unit | Carbon Monoxide Limits[a] | Averaging Times[b] |
|---|---|---|
| 1. Fluidized bed | 100 parts per million by dry volume | 4-hour |

| | | |
|---|---|---|
| 2. Fluidized bed, mixed fuel, (wood/refuse-derived fuel) | 200 parts per million by dry volume | 24-hour[c] |
| 3. Mass burn rotary refractory | 100 parts per million by dry volume | 4-hour |
| 4. Mass burn rotary waterwall | 250 parts per million by dry volume | 24-hour |
| 5. Mass burn waterwall and refractory | 100 parts per million by dry volume | 4-hour |
| 6. Mixed fuel-fired, (pulverized coal/refuse-derived fuel) | 150 parts per million by dry volume | 4-hour |
| 7. Modular starved-air and excess air | 50 parts per million by dry volume | 4-hour |
| 8. Spreader stoker, mixed fuel-fired (coal/refuse-derived fuel) | 200 parts per million by dry volume | 24-hour daily |
| 9. Stoker, refuse-derived fuel | 200 parts per million by dry volume | 24-hour daily |

[a]All emission limits (except for opacity) are measured at 7 percent oxygen. Compliance is determined by continuous emission monitoring systems.

[b]Block averages, arithmetic mean. See §113.2100 of this title for definitions.

[c]24-hour block average, geometric mean.

(f) Table 6 of this subsection specifies the requirements for validating continuous emission monitoring systems for Division 3 of this subchapter.

**Table 6. Requirements for Validating Continuous Emission Monitoring Systems (CEMS)**

| Continuous Emission Monitoring Systems | Method in 40 CFR Part 60, Appendix A to Validate Pollutant Concentration Levels | Method in 40 CFR Part 60, Appendix A to Measure Oxygen (or Carbon Dioxide) |
|---|---|---|
| 1. Nitrogen Oxides (Class I units only)[a] | Method 7, 7A, 7B, 7C, 7D, or 7E | Method 3 or 3A |
| 2. Sulfur Dioxide | Method 6 or 6C | Method 3 or 3A |
| 3. Carbon Monoxide | Method 10, 10A, or 10B | Method 3 or 3A |

[a]Class I units mean small municipal waste combustion units subject to this division that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste. See §113.2100 of this title for definitions.

(g) Table 7 of this subsection specifies the requirements for continuous emission monitoring systems for Division 3 of this subchapter.

**Table 7. Requirements for Continuous Emission Monitoring Systems (CEMS)**

| Pollutant | Span Values for CEMS | Performance | If Needed to Meet |
|---|---|---|---|

| | | Specifications (P.S.) in 40 CFR Part 60, Appendix B for your CEMS | Minimum Data Requirements, use the Following Alternate Methods in 40 CFR Part 60, Appendix A to Collect Data |
|---|---|---|---|
| 1. Opacity | 100 percent opacity | P.S. 1 | Method 9 |
| 2. Nitrogen Oxides (Class I units only) | Control device outlet: 125 percent of the maximum expected hourly potential nitrogen oxides emissions of the municipal waste combustion unit | P.S. 2 | Method 7E |
| 3. Sulfur Dioxide | Inlet to control device: 125 percent of the maximum expected hourly potential sulfur dioxide emissions of the municipal waste combustion unit<br><br>Control device outlet: 50 percent of the maximum expected hourly potential sulfur dioxide emissions of the municipal waste<br><br>combustion unit | P.S. 2 | Method 6C |
| 4. Carbon Monoxide | 125 percent of the maximum expected hourly potential carbon monoxide emissions of the municipal waste combustion unit | P.S. 4A | Method 10 with alternative interference trap |
| 5. Oxygen or Carbon Dioxide | 25 percent oxygen or 25 percent carbon dioxide | P.S. 3 | Method 3A or 3B |

(h) Table 8 of this subsection specifies the requirements for stack tests for Division 3 of this subchapter.

**Table 8. Requirements for Stack Tests**

| Pollutant | Method in 40 CFR Part 60, Appendix A to Determine Sampling Location | Method in 40 CFR Part 60, Appendix A to Measure Pollutant Concentration | Also Note the Following Information |
|---|---|---|---|
| 1. Organics: Dioxins/Furans | Method 1 | Method 23[a] | The minimum sampling time must be 4 hours per test run while the municipal waste combustion unit is operating at full load |
| 2. Metals: Cadmium | Method 1 | Method 29[a] | Compliance testing must be performed while the municipal waste combustion unit is operating at full load |
| Lead | Method 1 | Method 29[a] | Compliance testing must be performed while the municipal waste combustion unit is operating at full load |
| Mercury | Method 1 | Method 29[a] | Compliance testing must be performed while the municipal waste combustion unit is operating at full load |
| Opacity | Method 9 | Method 9 | Use Method 9 to determine compliance with opacity limits. 3-hour observation period (thirty 6-minute averages) |
| Particulate Matter | Method 1 | Method 5 or 29 | The minimum sample volume must be 1.0 cubic meters. The probe and filter holder heating systems in the sample train must be set to provide a gas temperature no greater than 160 ±14°C. The minimum sampling time is 1 hour |
| 3. Acid Gases[b] Hydrogen Chloride | Method 1 | Method 26 or 26A[a] | Test runs must be at least 1 hour long while the municipal waste combustion unit is operating at full load |

| | | | |
|---|---|---|---|
| 4. Other[b]<br>Fugitive Ash | Not applicable | Method 22<br>(visible emissions) | The three 1-hour observation period must include periods when the facility transfers fugitive ash from the municipal waste combustion unit to the area where the fugitive ash is stored or loaded into containers or trucks |

[a]Must simultaneously measure oxygen (or carbon dioxide) using Method 3A or 3B in 40 CFR Part 60, Appendix A.

[b]Use CEMS to test sulfur dioxide, nitrogen oxide, and carbon monoxide. Stack tests are not required except for quality assurance requirements in 40 CFR Part 60, Appendix F.

## DIVISION 4: EMISSIONS GUIDELINES AND COMPLIANCE TIMES FOR COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATION UNITS THAT COMMENCED CONSTRUCTION ON OR BEFORE NOVEMBER 30, 1999
## §§113.2200 - 113.2261
## Effective May 14, 2009

### §113.2200. Definitions.

Terms used but not defined in this division are defined in the Federal Clean Air Act and 40 Code of Federal Regulations Part 60, Subparts A and B.

(1) Administrator--The administrator of the United States Environmental Protection Agency or his/her authorized representative or administrator of a state air pollution control agency.

(2) Agricultural waste--Vegetative agricultural materials such as nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds, and other vegetative waste materials generated as a result of agricultural operations.

(3) Air curtain incinerator--An incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. (Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.)

(4) Auxiliary fuel--Natural gas, liquified petroleum gas, fuel oil, or diesel fuel.

(5) Bag leak detection system--An instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (i.e., baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

(6) Calendar quarter--Three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1.

(7) Calendar year--365 consecutive days starting on January 1 and ending on December 31.

(8) Chemotherapeutic waste--Waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

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

(10) Commercial and industrial solid waste incineration (CISWI) unit--Any combustion device that combusts commercial and industrial waste, as defined in this division. The boundaries of a CISWI unit are defined as, but not limited to, the commercial or industrial solid waste fuel feed system, grate system, flue gas system, and bottom ash. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial and industrial solid waste hopper (if applicable) and extends through two areas:

(A) The combustion unit flue gas system, which ends immediately after the last combustion chamber.

(B) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. It includes all ash handling systems connected to the bottom ash handling system.

(11) Commercial and industrial waste--Solid waste combusted in an enclosed device using controlled flame combustion without energy recovery that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air), or solid waste combusted in an air curtain incinerator without energy recovery that is a distinct operating unit of any commercial or industrial facility.

(12) Contained gaseous material--Gases that are in a container when that container is combusted.

(13) Cyclonic barrel burner--A combustion device for waste materials that is attached to a 55-gallon, open-head drum. The device consists of a lid, which fits onto and encloses the drum, and a blower that forces combustion air into the drum in a cyclonic manner to enhance the mixing of waste material and air.

(14) Deviation--Any instance in which an affected source subject to this division, or an owner or operator of such a source:

(A) Fails to meet any requirement or obligation established by this division, including but not limited to any emission limitation, operating limit, or operator qualification and accessibility requirements;

(B) Fails to meet any term or condition that is adopted to implement an applicable requirement in this division and that is included in the operating permit for any affected source required to obtain such a permit; or

(C) Fails to meet any emission limitation, operating limit, or operator qualification and accessibility requirement in this division during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this division.

(15) Dioxins/furans--Tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans.

(16) Discard--For purposes of this division, only, burned in an incineration unit without energy recovery.

(17) Drum reclamation unit--A unit that burns residues out of drums (e.g., 55-gallon drums) so that the drums can be reused.

(18) Energy recovery--The process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.

(19) Fabric filter--An add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

(20) Low-level radioactive waste--Waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable federal or state standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or by-product material as defined by the Atomic Energy Act of 1954 (42 United States Code, §2014(e)(2)).

(21) Malfunction--Any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions.

(22) Modification or modified commercial and industrial solid waste incineration (CISWI) unit--A CISWI unit you have changed later than June 1, 2001, and that meets one of two criteria:

(A) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including the cost of land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.

(B) Any physical change in the CISWI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which the Federal Clean Air Act, §111 or §129 has established standards.

(23) Part reclamation unit--A unit that burns coatings off parts (e.g., tools, equipment) so that the parts can be reconditioned and reused.

(24) Particulate matter--Total particulate matter emitted from commercial and industrial solid waste incineration units as measured by Method 5 or Method 29 of 40 Code of Federal Regulations Part 60, Appendix A.

(25) Pathological waste--Waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

(26) Rack reclamation unit--A unit that burns the coatings off racks used to hold small items for application of a coating. The unit burns the coating overspray off the rack so the rack can be reused.

(27) Reconstruction--Rebuilding a commercial and industrial solid waste incineration (CISWI) unit and meeting two criteria:

(A) The reconstruction begins on or after June 1, 2001.

(B) The cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.

(28) Refuse-derived fuel--A type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including two fuels:

(A) Low-density fluff refuse-derived fuel through densified refuse-derived fuel.

(B) Pelletized refuse-derived fuel.

(29) Shutdown--The period of time after all waste has been combusted in the primary chamber.

(30) Solid waste--Any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under the Federal Water Pollution Control Act, §402, as amended (33 United States Code (USC), §1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 USC, §2014). For purposes of this division, only, solid waste does not include the waste burned in the fifteen types of units described in 40 Code of Federal Regulations §60.2555.

(31) Standard conditions--When referring to units of measure, a temperature of 68 degrees Fahrenheit (20 degrees Celsius) and a pressure of 1 atmosphere (101.3 kilopascals).

(32) Startup period--The period of time between the activation of the system and the first charge to the unit.

(33) Wet scrubber--An add-on air pollution control device that utilizes an aqueous or alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

(34) Wood waste--Untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include:

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

(B) Construction, renovation, or demolition wastes.

(C) Clean lumber.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2201. What are my requirements for meeting increments of progress and achieving final compliance?**

If you plan to achieve compliance more than 1 year following the effective date of state plan approval, you must meet the two increments of progress specified in paragraphs (1) and (2) of this section.

(1) Submit a final control plan.

(2) Achieve final compliance.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2202. When must I complete each increment of progress?**

Table 1 in §113.2261 of this title (relating to Tables Relating to Division 4) specifies compliance dates for each of the increments of progress.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2203. What must I include in the notifications of achievement of increments of progress?**

Your notification of achievement of increments of progress must include the three items specified in paragraphs (1) through (3) of this section.

(1) Notification that the increment of progress has been achieved.

(2) Any items required to be submitted with each increment of progress.

(3) Signature of the owner or operator of the commercial and industrial solid waste incineration unit.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2204. When must I submit the notifications of achievement of increments of progress?**

Notifications for achieving increments of progress must be postmarked no later than 10 business days after the compliance date for the increment.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2205. What if I do not meet an increment of progress?**

If you fail to meet an increment of progress, you must submit a notification to the executive director postmarked within 10 business days after the date for that increment of progress in Table 1 in §113.2261 of this title (relating to Tables Relating to Division 4). You must inform the executive director that you did not meet the increment, and you must continue to submit reports each subsequent calendar month until the increment of progress is met.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2206. How do I comply with the increment of progress for submittal of a control plan?**

For your control plan increment of progress, you must satisfy the two requirements specified in paragraphs (1) and (2) of this section.

(1) Submit the final control plan that includes the five items described in subparagraphs (A) through (E) of this paragraph.

(A) A description of the devices for air pollution control and process changes that you will use to comply with the emission limitations and other requirements of this division.

(B) The type(s) of waste to be burned.

(C) The maximum design waste burning capacity.

(D) The anticipated maximum charge rate.

(E) If applicable, the petition for site-specific operating limits under §113.2222 of this title (relating to What if I do not use a wet scrubber to comply with the emission limitations?).

(2) Maintain an onsite copy of the final control plan.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2207. How do I comply with the increment of progress for achieving final compliance?**

For the final compliance increment of progress, you must complete all process changes and retrofit construction of control devices, as specified in the final control plan, so that, if the affected commercial and industrial solid waste incineration unit is brought online, all necessary process changes and air pollution control devices would operate as designed.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2208. What must I do if I close my commercial and industrial solid waste incineration unit and then restart it?**

(a) If you close your commercial and industrial solid waste incineration (CISWI) unit but will restart it prior to the final compliance date in your state plan, you must meet the increments of progress specified in §113.2201 of this title (relating to What are my requirements for meeting increments of progress and achieving final compliance?).

(b) If you close your CISWI unit but will restart it after your final compliance date, you must complete emission control retrofits and meet the emission limitations and operating limits on the date your unit restarts operation.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2209. What must I do if I plan to permanently close my commercial and industrial solid waste incineration unit and not restart it?**

If you plan to close your commercial and industrial solid waste incineration unit rather than comply with the state plan, submit a closure notification, including the date of closure, to the executive director by the date your final control plan is due.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2210. What is a waste management plan?**

A waste management plan is a written plan that identifies both the feasibility and the methods used to reduce or separate certain components of solid waste from the waste stream in order to reduce or eliminate toxic emissions from incinerated waste.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2211. When must I submit my waste management plan?**

You must submit a waste management plan no later than the date specified in Table 1 in §113.2261 of this title (relating to Tables Relating to Division 4) for submittal of the final control plan.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2212. What should I include in my waste management plan?**

A waste management plan must include consideration of the reduction or separation of waste-stream elements such as paper, cardboard, plastics, glass, batteries, or metals; or the use of recyclable materials. The plan must identify any additional waste management measures, and the source must implement those measures considered practical and feasible, based on the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other environmental or energy impacts they might have.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2213. What are the operator training and qualification requirements?**

(a) No commercial and industrial solid waste incineration (CISWI) unit can be operated unless a fully trained and qualified CISWI unit operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified CISWI unit operator may operate the CISWI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified CISWI unit operators are temporarily not accessible, you must follow the procedures in §113.2219 of this title (relating to What if all the qualified operators are temporarily not accessible?).

(b) Operator training and qualification must be obtained through a state-approved program or by completing the requirements included in subsection (c) of this section.

(c) Training must be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in paragraphs (1) through (3) of this subsection.

(1) Training on the eleven subjects listed in subparagraphs (A) through (K) of this paragraph.

(A) Environmental concerns, including types of emissions.

(B) Basic combustion principles, including products of combustion.

(C) Operation of the specific type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures.

(D) Combustion controls and monitoring.

(E) Operation of air pollution control equipment and factors affecting performance (if applicable).

(F) Inspection and maintenance of the incinerator and air pollution control devices.

(G) Actions to correct malfunctions or conditions that may lead to malfunction.

(H) Bottom and fly ash characteristics and handling procedures.

(I) Applicable federal, state, and local regulations, including Occupational Safety and Health Administration workplace standards.

(J) Pollution prevention.

(K) Waste management practices.

(2) An examination designed and administered by the instructor.

(3) Written material covering the training course topics that can serve as reference material following completion of the course.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2214. When must the operator training course be completed?**

The operator training course must be completed by the later of the three dates specified in paragraphs (1) through (3) of this section.

(1) The final compliance date (Increment 2).

(2) Six months after commercial and industrial solid waste incineration (CISWI) unit startup.

(3) Six months after an employee assumes responsibility for operating the CISWI unit or assumes responsibility for supervising the operation of the CISWI unit.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2215. How do I obtain my operator qualification?**

(a) You must obtain operator qualification by completing a training course that satisfies the criteria under §113.2213(b) of this title (relating to What are the operator training and qualification requirements?).

(b) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under §113.2213(c)(2) of this title.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2216. How do I maintain my operator qualification?**

To maintain qualification, you must complete an annual review or refresher course covering, at a minimum, the five topics described in paragraphs (1) through (5) of this section.

(1) Update of regulations.

(2) Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling.

(3) Inspection and maintenance.

(4) Responses to malfunctions or conditions that may lead to malfunction.

(5) Discussion of operating problems encountered by attendees.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2217. How do I renew my lapsed operator qualification?**

You must renew a lapsed operator qualification by one of the two methods specified in paragraphs (1) and (2) of this section.

(1) For a lapse of less than 3 years, you must complete a standard annual refresher course described in §113.2216 of this title (relating to How do I maintain my operator qualification?).

(2) For a lapse of 3 years or more, you must repeat the initial qualification requirements in §113.2215(a) of this title (relating to How do I obtain my operator qualification?).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2218. What site-specific documentation is required?**

(a) Documentation must be available at the facility and readily accessible for all commercial and industrial solid waste incineration (CISWI) unit operators that addresses the ten topics described in paragraphs (1) through (10) of this subsection. You must maintain this information and the training records required by subsection (c) of this section in a manner that they can be readily accessed and are suitable for inspection upon request.

(1) Summary of the applicable standards under this division.

(2) Procedures for receiving, handling, and charging waste.

(3) Incinerator startup, shutdown, and malfunction procedures.

(4) Procedures for maintaining proper combustion air supply levels.

(5) Procedures for operating the incinerator and associated air pollution control systems within the standards established under this division.

(6) Monitoring procedures for demonstrating compliance with the incinerator operating limits.

(7) Reporting and recordkeeping procedures.

(8) The waste management plan required under §§113.2210 through 113.2212 of this title (relating to What is a waste management plan? When must I submit my waste management plan? and What should I include in my waste management plan?).

(9) Procedures for handling ash.

(10) A list of the wastes burned during the performance test.

(b) You must establish a program for reviewing the information listed in subsection (a) of this section with each incinerator operator.

(1) The initial review of the information listed in subsection (a) of this section must be conducted by the later of the three dates specified in subparagraphs (A) through (C) of this paragraph.

(A) The final compliance date (Increment 2).

(B) Six months after CISWI unit startup.

(C) Six months after being assigned to operate the CISWI unit.

(2) Subsequent annual reviews of the information listed in subsection (a) of this section must be conducted no later than 12 months following the previous review.

(c) You must also maintain the information specified in paragraphs (1) through (3) of this subsection.

(1) Records showing the names of CISWI unit operators who have completed review of the information in subsection (a) of this section as required by subsection (b) of this section, including the date of the initial review and all subsequent annual reviews.

(2) Records showing the names of the CISWI operators who have completed the operator training requirements under §113.2213 of this title (relating to What are the operator training and qualification requirements?), met the criteria for qualification under §113.2215 of this title (relating to How do I obtain my operator qualification?), and maintained or renewed their qualification under §113.2216 or §113.2217 of this title (relating to How do I maintain my operator qualification? or How do I renew my lapsed operator qualification?). Records must include documentation of training, the dates of

the initial refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(3) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2219. What if all the qualified operators are temporarily not accessible?**

If all qualified operators are temporarily not accessible (i.e., not at the facility and not able to be at the facility within 1 hour), you must meet one of the two criteria specified in paragraphs (1) and (2) of this section, depending on the length of time that a qualified operator is not accessible.

(1) When all qualified operators are not accessible for more than 8 hours, but less than 2 weeks, the commercial and industrial solid waste incineration (CISWI) unit may be operated by other plant personnel familiar with the operation of the CISWI unit who have completed a review of the information specified in §113.2218(a) of this title (relating to What site-specific documentation is required?) within the past 12 months. However, you must record the period when all qualified operators were not accessible and include this deviation in the annual report as specified under §113.2240 of this title (relating to What information must I include in my annual report?).

(2) When all qualified operators are not accessible for 2 weeks or more, you must take the two actions that are described in subparagraphs (A) and (B) of this paragraph.

(A) Notify the executive director of this deviation in writing within 10 days after the end of the 2-week period. In the notice, state what caused this deviation, what you are doing to ensure that a qualified operator is accessible, and when you anticipate that a qualified operator will be accessible.

(B) Submit a status report to the executive director every 4 weeks outlining what you are doing to ensure that a qualified operator is accessible, stating when you anticipate that a qualified operator will be accessible, and requesting approval from the executive director to continue operation of the CISWI unit. You must submit the first status report 4 weeks after you notify the executive director of the deviation under subparagraph (A) of this paragraph. If the executive director notifies you that your request to continue operation of the CISWI unit is disapproved, the CISWI unit may continue operation for 90 days, then must cease operation. Operation of the unit may resume if you meet the two requirements in clauses (i) and (ii) of this subparagraph.

(i) A qualified operator is accessible as required under §113.2213(a) of this title (relating to What are the operator training and qualification requirements?).

(ii) You notify the executive director that a qualified operator is accessible and that you are resuming operation.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2220. What emission limitations must I meet and by when?**

You must meet the emission limitations specified in Table 2 in §113.2261 of this title (relating to Tables Relating to Division 4) on the date the initial performance test is required or completed (whichever is earlier).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2221. What operating limits must I meet and by when?**

(a) If you use a wet scrubber to comply with the emission limitations, you must establish operating limits for four operating parameters (as specified in Table 3 in §113.2261 of this title (relating to Tables Relating to Division 4)) as described in paragraphs (1) through (4) of this subsection during the initial performance test.

(1) Maximum charge rate, calculated using one of the two different procedures in subparagraph (A) or (B) of this paragraph, as appropriate.

(A) For continuous and intermittent units, maximum charge rate is 110 percent of the average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(B) For batch units, maximum charge rate is 110 percent of the daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(2) Minimum pressure drop across the wet scrubber, which is calculated as 90 percent of the average pressure drop across the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations; or minimum amperage to the wet scrubber, which is calculated as 90 percent of the average amperage to the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(3) Minimum scrubber liquor flow rate, which is calculated as 90 percent of the average liquor flow rate at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(4) Minimum scrubber liquor pH, which is calculated as 90 percent of the average liquor pH at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with the hydrogen chloride emission limitation.

(b) You must meet the operating limits established during the initial performance test on the date the initial performance test is required or completed (whichever is earlier).

(c) If you use a fabric filter to comply with the emission limitations, you must operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by you to initiate corrective action.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2222. What if I do not use a wet scrubber to comply with the emission limitations?**

If you use an air pollution control device other than a wet scrubber, or limit emissions in some other manner, to comply with the emission limitations under §113.2220 of this title (relating to What emission limitations must I meet and by when?), you must petition the executive director for specific operating limits to be established during the initial performance test and continuously monitored thereafter. You must not conduct the initial performance test until after the petition has been approved by the executive director. Your petition must include the five items listed in paragraphs (1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as additional operating limits.

(2) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters, and how limits on these parameters will serve to limit emissions of regulated pollutants.

(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the operating limits on these parameters.

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.

(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2223. What happens during periods of startup, shutdown, and malfunction?**

(a) The emission limitations and operating limits apply at all times except during commercial and industrial solid waste incineration unit startups, shutdowns, or malfunctions.

(b) Each malfunction must last no longer than 3 hours.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2224. How do I conduct the initial and annual performance test?**

(a) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations.

(b) You must document that the waste burned during the performance test is representative of the waste burned under normal operating conditions by maintaining a log of the quantity of waste burned (as required in §113.2234(2)(A) of this title (relating to What records must I keep?)) and the types of waste burned during the performance test.

(c) All performance tests must be conducted using the minimum run duration specified in Table 2 in §113.2261 of this title (relating to Tables Relating to Division 4).

(d) Method 1 of 40 Code of Federal Regulations (CFR) Part 60, Appendix A must be used to select the sampling location and number of traverse points.

(e) Method 3A or 3B of 40 CFR Part 60, Appendix A must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B of 40 CFR Part 60, Appendix A must be used simultaneously with each method.

(f) All pollutant concentrations, except for opacity, must be adjusted to 7 percent oxygen using equation 1 of this subsection:

$$C_{adj} = C_{meas} \frac{(20.9 - 7)}{(20.9 - \%O_2)} \quad \text{(Eq. 1)}$$

Where:
$C_{adj}$ = pollutant concentration adjusted to 7 percent oxygen;
$C_{meas}$ = pollutant concentration measured on a dry basis;
(20.9-7) = 20.9 percent oxygen-7 percent oxygen (defined oxygen correction basis);
20.9 = oxygen concentration in air, percent; and
$\%O_2$ = oxygen concentration measured on a dry basis, percent.

(g) You must determine dioxins/furans toxic equivalency by following the procedures in paragraphs (1) through (3) of this subsection.

(1) Measure the concentration of each dioxin/furan tetra- through octa-congener emitted using United States Environmental Protection Agency Method 23 in 40 CFR Part 60, Appendix A.

(2) For each dioxin/furan congener measured in accordance with paragraph (1) of this subsection, multiply the congener concentration by its corresponding toxic equivalency factor specified in Table 4 in §113.2261 of this title.

(3) Sum the products calculated in accordance with paragraph (2) of this subsection to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2225. How are the performance test data used?**

You use results of performance tests to demonstrate compliance with the emission limitations in Table 2 in §113.2261 of this title (relating to Tables Relating to Division 4).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2226. How do I demonstrate initial compliance with the emission limitations and establish the operating limits?**

You must conduct an initial performance test, as required under 40 Code of Federal Regulations §60.8, to determine compliance with the emission limitations in Table 2 in §113.2261 of this title (relating to Tables Relating to Division 4) and to establish operating limits using the procedure in §113.2221 or §113.2222 of this title (relating to What operating limits must I meet and by when? or What if I do not use a wet scrubber to comply with the emission limitations?). The initial performance test must be conducted using the test methods listed in Table 2 in §113.2261 of this title and the procedures in §113.2224 of this title (relating to How do I conduct the initial and annual performance test?).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2227. By what date must I conduct the initial performance test?**

The initial performance test must be conducted no later than 180 days after the deadline for your final compliance date. Your final compliance date is specified in Table 1 in §113.2261 of this title (relating to Tables Relating to Division 4).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2228. How do I demonstrate continuous compliance with the emission limitations and the operating limits?**

(a) You must conduct an annual performance test for particulate matter, hydrogen chloride, and opacity for each commercial and industrial solid waste incineration unit as required under 40 Code of Federal Regulations §60.8 to determine compliance with the emission limitations. The annual performance test must be conducted using the test methods listed in Table 2 in §113.2261 of this title

(relating to Tables Relating to Division 4) and the procedures in §113.2224 of this title (relating to How do I conduct the initial and annual performance test?).

(b) You must continuously monitor the operating parameters specified in §113.2221 of this title (relating to What operating limits must I meet and by when?) or established under §113.2222 of this title (relating to What if I do not use a wet scrubber to comply with the emission limitations?). Operation above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Three-hour rolling average values are used to determine compliance (except for baghouse leak detection system alarms) unless a different averaging period is established under §113.2222 of this title. Operating limits do not apply during performance tests.

(c) You must only burn the same types of waste used to establish operating limits during the performance test.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2229. By what date must I conduct the annual performance test?**

You must conduct annual performance tests for particulate matter, hydrogen chloride, and opacity within 12 months following the initial performance test. Conduct subsequent annual performance tests within 12 months following the previous one.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2230. May I conduct performance testing less often?**

(a) You can test less often for a given pollutant if you have test data for at least 3 years, and all performance tests for the pollutant (particulate matter, hydrogen chloride, or opacity) over 3 consecutive years show that you comply with the emission limitation. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the third year and no more than 36 months following the previous performance test.

(b) If your commercial and industrial solid waste incineration unit continues to meet the emission limitation for particulate matter, hydrogen chloride, or opacity, you may choose to conduct performance tests for these pollutants every third year, but each test must be within 36 months of the previous performance test.

(c) If a performance test shows a deviation from an emission limitation for particulate matter, hydrogen chloride, or opacity, you must conduct annual performance tests for that pollutant until all performance tests over a 3-year period show compliance.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2231. May I conduct a repeat performance test to establish new operating limits?**

(a) Yes. You may conduct a repeat performance test at any time to establish new values for the operating limits. The executive director may request a repeat performance test at any time.

(b) You must repeat the performance test if your feed stream is different than the feed streams used during any performance test used to demonstrate compliance.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2232. What monitoring equipment must I install and what parameters must I monitor?**

(a) If you are using a wet scrubber to comply with the emission limitation under §113.2220 of this title (relating to What emission limitations must I meet and by when?), you must install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the value of the operating parameters used to determine compliance with the operating limits listed in Table 3 in §113.2261 of this title (relating to Tables Relating to Division 4). These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in Table 3 in §113.2261 of this title at all times except as specified in §113.2233(a) of this title (relating to Is there a minimum amount of monitoring data I must obtain?).

(b) If you use a fabric filter to comply with the requirements of this division, you must install, calibrate, maintain, and continuously operate a bag leak detection system as specified in paragraphs (1) through (8) of this subsection.

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

(5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.

(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(c) If you are using something other than a wet scrubber to comply with the emission limitations under §113.2220 of this title, you must install, calibrate (to the manufacturers' specifications), maintain, and operate the equipment necessary to monitor compliance with the site-specific operating limits established using the procedures in §113.2222 of this title (relating to What if I do not use a wet scrubber to comply with the emission limitations?).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2233. Is there a minimum amount of monitoring data I must obtain?**

(a) Except for monitoring malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments of the monitoring system), you must conduct all monitoring at all times the commercial and industrial solid waste incineration unit is operating.

(b) Do not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements of this division, including data averages and calculations. You must use all the data collected during all other periods in assessing compliance with the operating limits.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2234. What records must I keep?**

You must maintain the 13 items (as applicable) as specified in paragraphs (1) through (13) of this section for a period of at least 5 years:

(1) Calendar date of each record.

(2) Records of the data described in subparagraphs (A) through (F) of this paragraph:

(A) The commercial and industrial solid waste incineration (CISWI) unit charge dates, times, weights, and hourly charge rates.

(B) Liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable.

(C) Pressure drop across the wet scrubber system every 15 minutes of operation or amperage to the wet scrubber every 15 minutes of operation, as applicable.

(D) Liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable.

(E) For affected CISWI units that establish operating limits for controls other than wet scrubbers under §113.2222 of this title (relating to What if I do not use a wet scrubber to comply with the emission limitations?), you must maintain data collected for all operating parameters used to determine compliance with the operating limits.

(F) If a fabric filter is used to comply with the emission limitations, you must record the date, time, and duration of each alarm and the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of operating time during each 6-month period that the alarm sounds, calculated as specified in §113.2221(c) of this title (relating to What operating limits must I meet and by when?).

(3) Identification of calendar dates and times for which monitoring systems used to monitor operating limits were inoperative, inactive, malfunctioning, or out of control (except for downtime associated with zero and span and other routine calibration checks). Identify the operating parameters not measured, the duration, reasons for not obtaining the data, and a description of corrective actions taken.

(4) Identification of calendar dates, times, and durations of malfunctions, and a description of the malfunction and the corrective action taken.

(5) Identification of calendar dates and times for which data show a deviation from the operating limits in Table 3 in §113.2261 of this title (relating to Tables Relating to Division 4) or a deviation from other operating limits established under §113.2222 of this title with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.

(6) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating limits, as applicable. Retain a copy of the complete test report including calculations.

(7) Records showing the names of CISWI unit operators who have completed review of the information in §113.2218(a) of this title (relating to What site-specific documentation is required?) as required by §113.2218(b) of this title, including the date of the initial review and all subsequent annual reviews.

(8) Records showing the names of the CISWI operators who have completed the operator training requirements under §113.2213 of this title (relating to What are the operator training and qualification requirements?), met the criteria for qualification under §113.2215 of this title (relating to How do I obtain my operator qualification?), and maintained or renewed their qualification under §113.2216 or §113.2217 of this title (relating to How do I maintain my operator qualification? or How do I renew my lapsed operator qualification?). Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(9) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

(10) Records of calibration of any monitoring devices as required under §113.2232 of this title (relating to What monitoring equipment must I install and what parameters must I monitor?).

(11) Equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment.

(12) The information listed in §113.2218(a) of this title.

(13) On a daily basis, keep a log of the quantity of waste burned and the types of waste burned (always required).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2235. Where and in what format must I keep my records?**

All records must be available onsite in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the executive director.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2236. What reports must I submit?**

See Table 5 in §113.2261 of this title (relating to Tables Relating to Division 4) for a summary of the reporting requirements.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2237. When must I submit my waste management plan?**

You must submit the waste management plan no later than the date specified in Table 1 in §113.2261 of this title (relating to Tables Relating to Division 4) for submittal of the final control plan.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2238. What information must I submit following my initial performance test?**

You must submit the information specified in paragraphs (1) through (3) of this section no later than 60 days following the initial performance test. All reports must be signed by the facilities manager.

(1) The complete test report for the initial performance test results obtained under §113.2226 of this title (relating to How do I demonstrate initial compliance with the emission limitations and establish the operating limits?), as applicable.

(2) The values for the site-specific operating limits established in §113.2221 or §113.2222 of this title (relating to What operating limits must I meet and by when? or What if I do not use a web scrubber to comply with the emission limitations?).

(3) If you are using a fabric filter to comply with the emission limitations, documentation that a bag leak detection system has been installed and is being operated, calibrated, and maintained as required by §113.2232(b) of this title (relating to What monitoring equipment must I install and what parameters must I monitor?).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2239. When must I submit my annual report?**

You must submit an annual report no later than 12 months following the submittal of the information in §113.2238 of this title (relating to What information must I submit following my initial performance test?). You must submit subsequent reports no more than 12 months following the previous report. (If the unit is subject to permitting requirements under Title V of the Federal Clean Air Act, you may be required by the permit to submit these reports more frequently.)

Adopted April 22, 2009 Effective May 14, 2009

**§113.2240. What information must I include in my annual report?**

The annual report required under §113.2239 of this title (relating to When must I submit my annual report?) must include the ten items listed in paragraphs (1) through (10) of this section. If you have a deviation from the operating limits or the emission limitations, you must also submit deviation reports as specified in §§113.2241, 113.2242, and 113.2243 of this title (relating to What else must I report if I have a deviation from the operating limits or the emission limitations?, What must I include in the deviation report?, and What else must I report if I have a deviation from the requirement to have a qualified operator accessible?).

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) The values for the operating limits established pursuant to §113.2221 or §113.2222 of this title (relating to What operating limits must I meet and by when? or What if I do not use a wet scrubber to comply with the emission limitations?).

(5) If no deviation from any emission limitation or operating limit that applies to you has been reported, a statement that there was no deviation from the emission limitations or operating limits

during the reporting period, and that no monitoring system used to determine compliance with the operating limits was inoperative, inactive, malfunctioning, or out of control.

(6) The highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.

(7) Information recorded under §113.2234(2)(F) and (3) through (5) of this title (relating to What records must I keep?) for the calendar year being reported.

(8) If a performance test was conducted during the reporting period, the results of that test.

(9) If you met the requirements of §113.2230(a) or (b) of this title (relating to May I conduct performance testing less often?), and did not conduct a performance test during the reporting period, you must state that you met the requirements of §113.2230(a) or (b) of this title, and, therefore, you were not required to conduct a performance test during the reporting period.

(10) Documentation of periods when all qualified commercial and industrial solid waste incineration unit operators were unavailable for more than 8 hours, but less than 2 weeks.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2241. What else must I report if I have a deviation from the operating limits or the emission limitations?**

(a) You must submit a deviation report if any recorded 3-hour average parameter level is above the maximum operating limit or below the minimum operating limit established under this division, if the bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6-month reporting period, or if a performance test was conducted that deviated from any emission limitation.

(b) The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2242. What must I include in the deviation report?**

In each report required under §113.2241 of this title (relating to What else must I report if I have a deviation from the operating limits or the emission limitations?), for any pollutant or parameter that deviated from the emission limitations or operating limits specified in this division, include the six items described in paragraphs (1) through (6) of this section.

(1) The calendar dates and times your unit deviated from the emission limitations or operating limit requirements.

(2) The averaged and recorded data for those dates.

(3) Duration and causes of each deviation from the emission limitations or operating limits and your corrective actions.

(4) A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels.

(5) The dates, times, number, duration, and causes for monitoring downtime incidents (other than downtime associated with zero, span, and other routine calibration checks).

(6) Whether each deviation occurred during a period of startup, shutdown, or malfunction, or during another period.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2243. What else must I report if I have a deviation from the requirement to have a qualified operator accessible?**

(a) If all qualified operators are not accessible for 2 weeks or more, you must take the two actions in paragraphs (1) and (2) of this subsection.

(1) Submit a notification of the deviation within 10 days after the end of the 2-week period that includes the three items in subparagraphs (A) through (C) of this paragraph.

(A) A statement of what caused the deviation.

(B) A description of what you are doing to ensure that a qualified operator is accessible.

(C) The date when you anticipate that a qualified operator will be available.

(2) Submit a status report to the executive director every 4 weeks that includes the three items in subparagraphs (A) through (C) of this paragraph.

(A) A description of what you are doing to ensure that a qualified operator is accessible.

(B) The date when you anticipate that a qualified operator will be accessible.

(C) Request approval from the executive director to continue operation of the commercial and industrial solid waste incineration unit.

(b) If your unit was shut down by the executive director, under the provisions of §113.2219(2)(B) of this title (relating to What if all the qualified operators are temporarily not accessible?), due to a failure to provide an accessible qualified operator, you must notify the executive director that you are resuming operation once a qualified operator is accessible.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2244. Are there any other notifications or reports that I must submit?**

Yes. You must submit notifications as provided by 40 Code of Federal Regulations §60.7.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2245. In what form can I submit my reports?**

Submit initial, annual, and deviation reports electronically or in paper format, postmarked on or before the submittal due dates.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2246. Can reporting dates be changed?**

If the executive director agrees, you may change the semiannual or annual reporting dates. See 40 Code of Federal Regulations §60.19(c) for procedures to seek approval to change your reporting date.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2247. Am I required to apply for and obtain a Title V operating permit for my unit?**

Yes. Each commercial and industrial solid waste incineration unit must operate pursuant to a permit issued under §129(e) and Title V of the Federal Clean Air Act by the later of the two dates in paragraphs (1) and (2) of this section.

(1) Thirty-six months after December 1, 2000.

(2) The effective date of the Title V permit program to which your unit is subject. If your unit is subject to Title V as a result of some triggering requirement(s) other than this division (for example, being a major source), then your unit may be required to apply for and obtain a Title V permit prior to the deadlines noted in this section. If more than one requirement triggers the requirement to apply for a Title V permit, the 12-month time frame for filing a Title V application is triggered by the requirement which first causes the source to be subject to Title V.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2248. What is an air curtain incinerator?**

(a) An air curtain incinerator operates by forcefully projecting a curtain of air across an open chamber or open pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. (Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.)

(b) Air curtain incinerators that burn only the materials listed in paragraphs (1) through (3) of this subsection are only required to meet the requirements under "Air Curtain Incinerators" (this section and §§113.2249 through 113.2260 of this title (relating to What are my requirements for meeting increments of progress and achieving final compliance?, When must I complete each increment of progress?, What must I include in the notifications of achievement of increments of progress?, When must I submit the notifications of achievement of increments of progress?, What if I do not meet an increment of progress?, How do I comply with the increment of progress for submittal of a control plan?, How do I comply with the increment of progress for achieving final compliance?, What must I do if I close my air curtain incinerator and then restart it?, What must I do if I plan to permanently close my air curtain incinerator and not restart it?, What are the emission limitations for air curtain incinerators?, How must I monitor opacity for air curtain incinerators?, and What are the recordkeeping and reporting requirements for air curtain incinerators?)). In addition, air curtain incinerators must meet the requirements of §113.2247 of this title (relating to Am I required to apply for and obtain a Title V operating permit for my unit?).

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

(3) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2249. What are my requirements for meeting increments of progress and achieving final compliance?**

If you plan to achieve compliance more than 1 year following the effective date of state plan approval, you must meet the two increments of progress specified in paragraphs (1) and (2) of this section.

(1) Submit a final control plan.

(2) Achieve final compliance.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2250. When must I complete each increment of progress?**

Table 1 in §113.2261 of this title (relating to Tables Relating to Division 4) specifies compliance dates for each of the increments of progress.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2251. What must I include in the notifications of achievement of increments of progress?**

Your notification of achievement of increments of progress must include the three items described in paragraphs (1) through (3) of this section.

(1) Notification that the increment of progress has been achieved.

(2) Any items required to be submitted with each increment of progress (see §113.2254 of this title (relating to How do I comply with the increment of progress for submittal of a control plan?)).

(3) Signature of the owner or operator of the incinerator.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2252. When must I submit the notifications of achievement of increments of progress?**

Notifications for achieving increments of progress must be postmarked no later than 10 business days after the compliance date for the increment.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2253. What if I do not meet an increment of progress?**

If you fail to meet an increment of progress, you must submit a notification to the executive director postmarked within 10 business days after the date for that increment of progress in Table 1 in §113.2261 of this title (relating to Tables Relating to Division 4). You must inform the executive director that you did not meet the increment, and you must continue to submit reports each subsequent calendar month until the increment of progress is met.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2254. How do I comply with the increment of progress for submittal of a control plan?**

For your control plan increment of progress, you must satisfy the two requirements specified in paragraphs (1) and (2) of this section.

(1) Submit the final control plan, including a description of any devices for air pollution control and any process changes that you will use to comply with the emission limitations and other requirements of this division.

(2) Maintain an onsite copy of the final control plan.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2255. How do I comply with the increment of progress for achieving final compliance?**

For the final compliance increment of progress, you must complete all process changes and retrofit construction of control devices, as specified in the final control plan, so that, if the affected incinerator is brought online, all necessary process changes and air pollution control devices would operate as designed.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2256. What must I do if I close my air curtain incinerator and then restart it?**

(a) If you close your incinerator but will reopen it prior to the final compliance date in your state plan, you must meet the increments of progress specified in §113.2249 of this title (relating to What are my requirements for meeting increments of progress and achieving final compliance?).

(b) If you close your incinerator but will restart it after your final compliance date, you must complete emission control retrofits and meet the emission limitations on the date your incinerator restarts operation.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2257. What must I do if I plan to permanently close my air curtain incinerator and not restart it?**

If you plan to close your incinerator rather than comply with the state plan, submit a closure notification, including the date of closure, to the executive director by the date your final control plan is due.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2258. What are the emission limitations for air curtain incinerators?**

(a) After the date the initial stack test is required or completed (whichever is earlier), you must meet the limitations in paragraphs (1) and (2) of this subsection.

(1) The opacity limitation is 10 percent (6-minute average), except as described in paragraph (2) of this subsection.

(2) The opacity limitation is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.

(b) Except during malfunctions, the requirements of this division apply at all times, and each malfunction must not exceed 3 hours.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2259. How must I monitor opacity for air curtain incinerators?**

(a) Use Method 9 of 40 Code of Federal Regulations (CFR) Part 60, Appendix A to determine compliance with the opacity limitation.

(b) Conduct an initial test for opacity as specified in 40 CFR §60.8 no later than 180 days after your final compliance date.

(c) After the initial test for opacity, conduct annual tests no more than 12 calendar months following the date of your previous test.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2260. What are the recordkeeping and reporting requirements for air curtain incinerators?**

(a) Keep records of results of all initial and annual opacity tests onsite in either paper copy or electronic format, unless the executive director approves another format, for at least 5 years.

(b) Make all records available for submittal to the executive director or for an inspector's onsite review.

(c) Submit an initial report no later than 60 days following the initial opacity test that includes the information specified in paragraphs (1) and (2) of this subsection.

(1) The types of materials you plan to combust in your air curtain incinerator.

(2) The results (each 6-minute average) of the initial opacity tests.

(d) Submit annual opacity test results within 12 months following the previous report.

(e) Submit initial and annual opacity test reports as electronic or paper copy on or before the applicable submittal date and keep a copy onsite for a period of 5 years.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2261. Tables Relating to Division 4.**

(a) Table 1 specifies the increments of progress and compliance schedules for Division 4 of this subchapter.

**Table 1. Increments of Progress and Compliance Schedules**

| Increments of Progress | Compliance Dates |
|---|---|
| Increment 1: Submit Final Control Plan | No later than 12 months from the date the TCEQ publishes notice in the *Texas Register* of state plan approval |
| Increment 2: Final Compliance | No later than 36 months from the date the TCEQ publishes notice in the *Texas Register* of state plan approval |

(b) Table 2 of this subsection specifies the emission limitations for Division 4 of this subchapter.

**Table 2. Emission Limitations**

| Pollutant | Emission Limitation[a] | Averaging Time | Method to Determine Compliance |
|---|---|---|---|
| Cadmium | 0.004 milligrams per dry standard cubic meter | 3-run average (1 hour minimum sample time per run) | Performance test (Method 29 of 40 CFR Part 60, Appendix A) |
| Carbon monoxide | 157 parts per million by dry volume | 3-run average (1 hour minimum sample time per run) | Performance test (Method 10, 10A, or 10B, of 40 CFR Part 60, Appendix A) |
| Dioxins/furans (toxic equivalency basis) | 0.41 nanograms per dry standard cubic meter | 3-run average (1 hour minimum sample time per run) | Performance test (Method 23 of 40 CFR Part 60, Appendix A) |
| Hydrogen chloride | 62 parts per million by dry volume | 3-run average (1 hour minimum sample time per run) | Performance test (Method 26A of 40 CFR Part 60, Appendix A) |
| Lead | 0.04 milligrams per dry standard cubic meter | 3-run average (1 hour minimum sample time per run) | Performance test (Method 29 of 40 CFR Part 60, Appendix A) |
| Mercury | 0.47 milligrams per dry standard cubic meter | 3-run average (1 hour minimum sample time per run) | Performance test (Method 29 of 40 CFR Part 60, Appendix A) |
| Opacity | 10 percent | 6-minute averages | Performance test (Method 9 of 40 CFR Part 60, Appendix A) |
| Oxides of nitrogen | 388 parts per million by dry volume | 3-run average (1 hour minimum sample time per run) | Performance test (Methods 7, 7A, 7C, 7D, or 7E of 40 CFR Part 60, Appendix A) |
| Particulate | 70 milligrams per dry | 3-run average (1 hour | Performance test (Method |

| | | | |
|---|---|---|---|
| matter | standard cubic meter | minimum sample time per run) | 5 or 29 of 40 CFR Part 60, Appendix A) |
| Sulfur dioxide | 20 parts per million by dry volume | 3-run average (1 hour minimum sample time per run) | Performance test (Method 6 or 6C of 40 CFR Part 60, Appendix A) |

[a]All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.

(c) Table 3 of this subsection specifies operating limits for wet scrubbers for Division 4 of this subchapter.

**Table 3. Operating Limits for Wet Scrubbers_**

| For these operating parameters | You must establish these operating limits | And monitor using these minimum frequencies | | |
|---|---|---|---|---|
| | | Data Measurement | Data Recording | Averaging Time |
| Charge rate | Maximum charge rate | Continuous | Every hour | Daily (batch units). 3-hour rolling (continuous and intermittent units)[a] |
| Pressure drop across the wet scrubber or amperage to wet scrubber | Minimum pressure drop or amperage | Continuous | Every 15 minutes | 3-hour rolling[a] |
| Scrubber liquor flow rate | Minimum flow rate | Continuous | Every 15 minutes | 3-hour rolling[a] |
| Scrubber liquor pH | Minimum pH | Continuous | Every 15 minutes | 3-hour rolling[a] |

[a]Calculated each hour as the average of the previous 3 operating hours.

(d) Table 4 of this subsection specifies the toxic equivalency factors for Division 4 of this subchapter.

**Table 4. Toxic Equivalency Factors**

| Dioxin/Furan Congener | Toxic Equivalency Factor |
|---|---|
| 2,3,7,8-tetrachlorinated dibenzo-p-dioxin | 1 |
| 1,2,3,7,8-pentachlorinated dibenzo-p-dioxin | 0.5 |
| 1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin | 0.01 |
| octachlorinated dibenzo-p-dioxin | 0.001 |
| 2,3,7,8-tetrachlorinated dibenzofuran | 0.1 |
| 2,3,4,7,8-pentachlorinated dibenzofuran | 0.5 |
| 1,2,3,7,8-pentachlorinated dibenzofuran | 0.05 |
| 1,2,3,4,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,6,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,7,8,9-hexachlorinated dibenzofuran | 0.1 |
| 2,3,4,6,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,4,6,7,8-heptachlorinated dibenzofuran | 0.01 |
| 1,2,3,4,7,8,9-heptachlorinated dibenzofuran | 0.01 |
| octachlorinated dibenzofuran | 0.001 |

(e) Table 5 of this subsection is a summary of reporting requirements for Division 4 of this subchapter.

**Table 5. Summary of Reporting Requirements [a]**

| Report | Due Date | Contents | Reference |
|---|---|---|---|
| Waste Management Plan | No later than the date specified in Table 1 for submittal of the final control plan | • Waste management plan | §113.2237 of this title (relating to When must I submit my waste management plan?) |
| Initial Test Report | No later than 60 days following the initial performance test | • Complete test report for the initial performance test<br>• The values for the site-specific operating limits<br>• Installation of bag leak detection systems for fabric filters | §113.2238 of this title (relating to What information must I submit following my initial performance test?) |
| Annual Report | No later than 12 months following the submittal of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report | • Name and address<br>• Statement and signature by responsible official<br>• Date of report<br>• Values for the operating limits<br>• If no deviations or malfunctions were reported, a statement that no deviations occurred during the reporting period<br>• Highest recorded 3-hour average and the lowest 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported<br>• Information for deviations or malfunctions recorded under §113.2234(2)(F) and (3) through (5) | §113.2239 and §113.2240 of this title (relating to When must I submit my annual report? and What information must I include in my annual |

| | | | |
|---|---|---|---|
| | | • If a performance test was conducted during the reporting period, the results of the test<br>• If a performance test was not conducted during the reporting period, a statement that the requirements of 40 CFR §60.2155(a) or (b) were met<br>• Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours but less than 2 weeks | report?) |
| Emission Limitation or Operating Limit Deviation Report | By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year | • Dates and times of deviations<br>• Averaged and recorded data for these dates<br>• Duration and causes for each deviation and the corrective actions taken<br>• Copy of operating limit monitoring data and any test reports<br>• Dates, times, and causes for monitor downtime incidents<br>• Whether each deviation occurred during a period of startup, shutdown, or malfunction | §113.2241 and §113.2242 of this title (relating to What else must I report if I have a deviation from the operating limits or the emission limitations? and What must I include in the deviation report?) |
| Qualified Operator Deviation Notification | Within 10 days of deviation | • Statement of cause of deviation<br>• Description of efforts to have an accessible qualified operator<br>• The date a qualified operator will be accessible | §113.2243(a)(1) of this title (relating to What else must I report if I have a deviation from the requirement to have a qualified operator |

| | | | |
|---|---|---|---|
| | | | accessible?) |
| Qualified Operator Deviation Status Report | Every 4 weeks following deviation | • Description of efforts to have an accessible qualified operator<br>• The date a qualified operator will be accessible<br>• Request for approval to continue operation | §113.2243(a)(2) of this title |
| Qualified Operator Deviation Notification of Resumed Operation | Prior to resuming operation | • Notification that you are resuming operation | §113.2243(b) of this title |

[a]This table is only a summary, see the referenced sections of the rule for the complete requirements.

## DIVISION 5: EMISSION GUIDELINES AND COMPLIANCE TIMES FOR OTHER SOLID WASTE INCINERATION UNITS THAT COMMENCED CONSTRUCTION ON OR BEFORE DECEMBER 9, 2004
## §§113.2300 - 113.2357
## Effective May 14, 2009

**§113.2300. Definitions.**

Terms used but not defined in this division are defined in the Federal Clean Air Act and 40 Code of Federal Regulations Part 60, Subpart A (General Provisions).

(1) Administrator--As follows:

(A) For approved and effective state §111(d)/129 plans, the director of the state air pollution control agency, or his or her delegatee;

(B) For federal §111(d)/129 plans, the administrator of the United States Environmental Protection Agency (EPA), an employee of the EPA, the director of the state air pollution control agency, or employee of the state air pollution control agency to whom the authority has been delegated by the administrator of the EPA to perform the specified task; and

(C) For New Source Performance Standards in 40 Code of Federal Regulations Part 60, the administrator of the EPA, an employee of the EPA, the director of the state air pollution control agency, or employee of the state air pollution control agency to whom the authority has been delegated by the administrator of the EPA to perform the specified task.

(2) Air curtain incinerator--An incineration unit operating by forcefully projecting a curtain of air across an open, integrated combustion chamber (fire box) or open pit or trench (trench burner) in which combustion occurs. For the purpose of this division, air curtain incinerators include both firebox and trench burner units.

(3) Auxiliary fuel--Natural gas, liquified petroleum gas, fuel oil, or diesel fuel.

(4) Batch other solid waste incineration (OSWI) unit--An OSWI unit that is designed such that neither waste charging nor ash removal can occur during combustion.

(5) Calendar quarter--Three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1.

(6) Calendar year--365 consecutive days starting on January 1 and ending on December 31.

(7) Chemotherapeutic waste--Waste material resulting from the production or use of anti-neoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

(8) Class II municipal solid waste landfill--A landfill that meets four criteria:

(A) Accepts, for incineration or disposal, less than 20 tons per day of municipal solid waste or other solid wastes based on an annual average;

(B) Is located on a site where there is no evidence of groundwater pollution caused or contributed to by the landfill;

(C) Is not connected by road to a Class I municipal solid waste landfill, as defined by Alaska regulatory code 18 AAC 60.300(c) or, if connected by road, is located more than 50 miles from a Class I municipal solid waste landfill; and

(D) Serves a community that meets one of two criteria:

(i) Experiences for at least 3 months each year, an interruption in access to surface transportation, preventing access to a Class I municipal solid waste landfill; or

(ii) Has no practicable waste management alternative, with a landfill located in an area that annually receives 25 inches or less of precipitation.

(9) Class III municipal solid waste landfill--A landfill that is not connected by road to a Class I municipal solid waste landfill, as defined by Alaska regulatory code 18 AAC 60.300(c) or, if connected by road, is located more than 50 miles from a Class I municipal solid waste landfill, and that accepts, for disposal, either of the following two criteria:

(A) Ash from incinerated municipal waste in quantities less than one ton per day on an annual average, which ash must be free of food scraps that might attract animals; or

(B) Less than five tons per day of municipal solid waste, based on an annual average, and is not located in a place that meets either of the following criteria:

(i) Where public access is restricted, including restrictions on the right to move to the place and reside there; or

(ii) That is provided by an employer and that is populated totally by persons who are required to reside there as a condition of employment and who do not consider the place to be their permanent residence.

(10) Clean lumber--Wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

(11) Collected from--The transfer of material from the site at which the material is generated to a separate site where the material is burned.

(12) Contained gaseous material--Gases that are in a container when that container is combusted.

(13) Continuous emission monitoring system or CEMS--A monitoring system for continuously measuring and recording the emissions of a pollutant from an other solid waste incineration unit.

(14) Continuous other solid waste incineration (OSWI) unit--An OSWI unit that is designed to allow waste charging and ash removal during combustion.

(15) Deviation--Any instance in which a unit that meets the requirements in 40 Code of Federal Regulations (CFR) §60.2991, or an owner or operator of such a source:

(A) Fails to meet any requirement or obligation established by this division, including but not limited to any emission limitation, operating limit, or operator qualification and accessibility requirements;

(B) Fails to meet any term or condition that is adopted to implement an applicable requirement in this division and that is included in the operating permit for any unit that meets requirements in 40 CFR §60.2991 and is required to obtain such a permit; or

(C) Fails to meet any emission limitation, operating limit, or operator qualification and accessibility requirement in this division during startup, shutdown, or malfunction, regardless of whether or not such failure is allowed by this division.

(16) Dioxins/furans--Tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans.

(17) Energy recovery--The process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.

(18) United States Environmental Protection Agency or EPA--The administrator of the EPA or employee of the EPA that is delegated the authority to perform the specified task.

(19) Institutional facility--A land-based facility owned and/or operated by an organization having a governmental, educational, civic, or religious purpose such as a school, hospital, prison, military installation, church, or other similar establishment or facility.

(20) Institutional waste--Solid waste (as defined in this division) that is combusted at any institutional facility using controlled flame combustion in an enclosed, distinct operating unit: whose design does not provide for energy recovery (as defined in this division); operated without energy recovery (as defined in this division); or operated with only waste heat recovery (as defined in this division). Institutional waste also means solid waste (as defined in this division) combusted on site in an air curtain incinerator that is a distinct operating unit of any institutional facility.

(21) Institutional waste incineration unit--Any combustion unit that combusts institutional waste (as defined in this division) and is a distinct operating unit of the institutional facility that generated the waste. Institutional waste incineration units include field-erected, modular, cyclonic burn barrel, and custom built incineration units operating with starved or excess air, and any air curtain incinerator that is a distinct operating unit of the institutional facility that generated the institutional waste (except those air curtain incinerators listed in 40 Code of Federal Regulations §60.2994(b)).

(22) Intermittent other solid waste incineration (OSWI) unit--An OSWI unit that is designed to allow waste charging, but not ash removal, during combustion.

(23) Low-level radioactive waste--Waste material that contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable federal or state standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or byproduct material as defined by the Atomic Energy Act of 1954 (42 United States Code 2014(e)(2)).

(24) Malfunction--Any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions.

(25) Metropolitan Statistical Area--Any areas listed as metropolitan statistical areas in Office of Management and Budget Bulletin No. 05 - 02 entitled "Update of Statistical Area Definitions and Guidance on Their Uses" dated February 22, 2005 (available on the Web at *http://www.whitehouse.gov/omb/bulletins/*).

(26) Modification or modified unit--An incineration unit you have changed on or after June 16, 2006, and that meets one of two criteria:

(A) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the unit (not including the cost of land) updated to current costs (current dollars). For an other solid waste incineration (OSWI) unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.

(B) Any physical change in the OSWI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which the Federal Clean Air Act, §129 or §111 has established standards.

(27) Municipal solid waste--Refuse (and refuse-derived fuel) collected from the general public and from residential, commercial, institutional, and industrial sources consisting of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials and non-combustible materials such as metal, glass, and rock, provided that:

(A) The term does not include industrial process wastes or medical wastes that are segregated from such other wastes; and

(B) an incineration unit shall not be considered to be combusting municipal solid waste for purposes of this division if it combusts a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal solid waste, as determined by 40 Code of Federal Regulations §60.2993(b).

(28) Municipal waste combustion unit--For the purpose of this division, any setting or equipment that combusts municipal solid waste (as defined in this division) including, but not limited to, field-erected, modular, cyclonic burn barrel, and custom built incineration units (with or without energy recovery) operating with starved or excess air, boilers, furnaces, pyrolysis/combustion units, and air curtain incinerators (except those air curtain incinerators listed in 40 Code of Federal Regulations §60.2994(b)).

(29) Other solid waste incineration (OSWI) unit--Either a very small municipal waste combustion unit or an institutional waste incineration unit, as defined in this division. Unit types listed in 40 Code of Federal Regulations §60.2993 as being excluded from the division are not OSWI units subject to this division. While not all OSWI units will include all of the following components, an OSWI unit includes, but is not limited to, the municipal or institutional solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The OSWI unit does not include air pollution control equipment or the stack. The OSWI unit boundary starts at the municipal or institutional waste hopper (if applicable) and extends through two areas:

(A) The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and

(B) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The OSWI unit includes all ash handling systems connected to the bottom ash handling system.

(30) Particulate matter--Total particulate matter emitted from other solid waste incineration units as measured by Method 5 or Method 29 of 40 Code of Federal Regulations Part 60, Appendix A.

(31) Pathological waste--Waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

(32**)** Reconstruction--Rebuilding an incineration unit and meeting two criteria:

(A) The reconstruction begins on or after June 16, 2006.

(B) The cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the unit (not including land) updated to current costs (current dollars). For an other solid waste incineration (OSWI) unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.

(33) Refuse-derived fuel--A type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including two fuels:

(A) Low-density fluff refuse-derived fuel through densified refuse-derived fuel; and

(B) Pelletized refuse-derived fuel.

(34) Shutdown--The period of time after all waste has been combusted in the primary chamber. For continuous other solid waste incineration (OSWI), shutdown shall commence no less than 2 hours after the last charge to the incinerator. For intermittent OSWI, shutdown shall commence no less than 4 hours after the last charge to the incinerator. For batch OSWI, shutdown shall commence no less than 5 hours after the high-air phase of combustion has been completed.

(35) Solid waste--Any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under the Federal Water Pollution Control Act, §402 as amended (33 United States Code (USC), §1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 USC, §2014).

(36) Standard conditions--When referring to units of measure, a temperature of 68 degrees Fahrenheit (20 degrees Celsius) and a pressure of 1 atmosphere (101.3 kilopascals).

(37) Startup period--The period of time between the activation of the system and the first charge to the other solid waste incineration (OSWI) unit. For batch OSWI, startup means the period of time between activation of the system and ignition of the waste.

(38) Very small municipal waste combustion unit--Any municipal waste combustion unit that has the capacity to combust less than 35 tons per day of municipal solid waste or refuse-derived fuel, as determined by the calculations in §113.2356 of this title (relating to What equations must I use?).

(39) Waste heat recovery--The process of recovering heat from the combustion flue gases outside of the combustion firebox by convective heat transfer only.

(40) Wet scrubber--An add-on air pollution control device that utilizes an aqueous or alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

(41) Wood waste--Untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include:

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

(B) Construction, renovation, or demolition wastes.

(C) Clean lumber.

(D) Treated wood and treated wood products, including wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

(42) Yard waste--Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. Yard waste comes from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include two items:

(A) Construction, renovation, and demolition wastes.

(B) Clean lumber.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2301. When must I comply?**

Table 1 in §113.2357 of this title (relating to Tables Relating to Division 5) specifies the final compliance date. You must submit a notification to the executive director stating whether final compliance has been achieved, postmarked within 10 business days after the final compliance date in Table 1 in §113.2357 of this title.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2302. What must I do if I close my other solid waste incineration unit and then restart it?**

(a) If you close your other solid waste incineration (OSWI) unit but will reopen it prior to the final compliance date in your state plan, you must meet the final compliance date specified in Table 1 in §113.2357 of this title (relating to Tables Relating to Division 5).

(b) If you close your OSWI unit but will restart it after your final compliance date, you must complete emission control retrofit and meet the emission limitations on the date your OSWI unit restarts operation. You must conduct your initial performance test within 30 days of restarting your OSWI unit.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2303. What must I do if I plan to permanently close my other solid waste incineration unit and not restart it?**

You must close the unit before the final compliance date specified in Table 1 in §113.2357 of this title (relating to Tables Relating to Division 5).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2304. What is a waste management plan?**

A waste management plan is a written plan that identifies both the feasibility and the methods used to reduce or separate certain components of solid waste from the waste stream in order to reduce or eliminate toxic emissions from incinerated waste.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2305. When must I submit my waste management plan?**

You must submit a waste management plan no later than 60 days following the initial performance test as specified in Table 5 in §113.2357 of this title (relating to Tables Relating to Division 5). Section 113.2321 of this title (relating to By what date must I conduct the initial performance test?) specifies the date by which you are required to conduct your performance test.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2306. What should I include in my waste management plan?**

A waste management plan must include consideration of the reduction or separation of waste-stream elements such as paper, cardboard, plastics, glass, batteries, or metals; or the use of recyclable materials. The plan must identify any additional waste management measures and implement those measures the source considers practical and feasible, considering the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other environmental or energy impacts they might have.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2307. What are the operator training and qualification requirements?**

(a) No other solid waste incineration (OSWI) unit can be operated unless a fully trained and qualified OSWI unit operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified OSWI unit operator may operate the OSWI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified OSWI unit operators are temporarily not accessible, you must follow the procedures in §113.2313 of this title (relating to What if all the qualified operators are temporarily not accessible?).

(b) Operator training and qualification must be obtained through a state-approved program or by completing the requirements included in subsection (c) of this section.

(c) Training must be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in paragraphs (1) through (3) of this subsection.

(1) Training on the 13 subjects listed in subparagraphs (A) through (M) of this paragraph.

(A) Environmental concerns, including types of emissions.

(B) Basic combustion principles, including products of combustion.

(C) Operation of the specific type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures.

(D) Combustion controls and monitoring.

(E) Operation of air pollution control equipment and factors affecting performance (if applicable).

(F) Inspection and maintenance of the incinerator and air pollution control devices.

(G) Methods to monitor pollutants (including monitoring of incinerator and control device operating parameters) and monitoring equipment calibration procedures, where applicable.

(H) Actions to correct malfunctions or conditions that may lead to malfunction.

(I) Bottom and fly ash characteristics and handling procedures.

(J) Applicable federal, state, and local regulations, including Occupational Safety and Health Administration workplace standards.

(K) Pollution prevention.

(L) Waste management practices.

(M) Recordkeeping requirements.

(2) An examination designed and administered by the instructor.

(3) Written material covering the training course topics that may serve as reference material following completion of the course.

**§113.2308. When must the operator training course be completed?**

The operator training course must be completed by the latest of the three dates specified in paragraphs (1) through (3) of this section.

(1) The final compliance date specified in Table 1 in §113.2357 of this title (relating to Tables Relating to Division 5).

(2) Six months after your other solid waste incineration (OSWI) unit startup.

(3) Six months after an employee assumes responsibility for operating the OSWI unit or assumes responsibility for supervising the operation of the OSWI unit.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2309. How do I obtain my operator qualification?**

(a) You must obtain operator qualification by completing a training course that satisfies the criteria under §113.2307(c) of this title (relating to What are the operator training and qualification requirements?).

(b) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under §113.2307(c)(2) of this title.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2310. How do I maintain my operator qualification?**

To maintain qualification, you must complete an annual review or refresher course covering, at a minimum, the five topics described in paragraphs (1) through (5) of this section.

(1) Update of regulations.

(2) Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling.

(3) Inspection and maintenance.

(4) Responses to malfunctions or conditions that may lead to malfunction.

(5) Discussion of operating problems encountered by attendees.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2311. How do I renew my lapsed operator qualification?**

You must renew a lapsed operator qualification by one of the two methods specified in paragraphs (1) and (2) of this section.

(1) For a lapse of less than 3 years, you must complete a standard annual refresher course described in §113.2310 of this title (relating to How do I maintain my operator qualification?).

(2) For a lapse of 3 years or more, you must repeat the initial qualification requirements in §113.2309(a) of this title (relating to How do I obtain my operator qualification?).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2312. What site-specific documentation is required?**

(a) Documentation must be available at the facility and readily accessible for all other solid waste incineration (OSWI) unit operators that addresses the nine topics described in paragraphs (1) through (9) of this subsection. You must maintain this information and the training records required by subsection (c) of this section in a manner that they can be readily accessed and are suitable for inspection upon request.

(1) Summary of the applicable standards under this division.

(2) Procedures for receiving, handling, and charging waste.

(3) Incinerator startup, shutdown, and malfunction procedures.

(4) Procedures for maintaining proper combustion air supply levels.

(5) Procedures for operating the incinerator and associated air pollution control systems within the standards established under this division.

(6) Monitoring procedures for demonstrating compliance with the operating limits established under this division.

(7) Reporting and recordkeeping procedures.

(8) The waste management plan required under §§113.2304 through 113.2306 of this title (relating to What is a waste management plan? When must I submit my waste management plan? and What should I include in my waste management plan?).

(9) Procedures for handling ash.

(b) You must establish a program for reviewing the information listed in subsection (a) of this section with each incinerator operator.

(1) The initial review of the information listed in subsection (a) of this section must be conducted by the latest of three dates specified in subparagraphs (A) through (C) of this paragraph.

(A) The final compliance date specified in Table 1 in §113.2357 of this title (relating to Tables Relating to Division 5).

(B) Six months after your OSWI unit startup.

(C) Six months after an employee assumes responsibility for operating the OSWI unit or assumes responsibility for supervising the operation of the OSWI unit.

(2) Subsequent annual reviews of the information listed in subsection (a) of this section must be conducted not later than 12 months following the previous review.

(c) You must also maintain the information specified in paragraphs (1) through (3) of this subsection.

(1) Records showing the names of OSWI unit operators who have completed review of the information in subsection (a) of this section as required by subsection (b) of this section, including the date of the initial review and all subsequent annual reviews.

(2) Records showing the names of the OSWI unit operators who have completed the operator training requirements under §113.2307 of this title (relating to What are the operator training and qualification requirements?), met the criteria for qualification under §113.2309 of this title (relating to How do I obtain my operator qualification?), and maintained or renewed their qualification under §113.2310 or §113.2311 of this title (relating to How do I maintain my operator qualification? or How do I renew my lapsed operator qualification?). Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(3) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2313. What if all the qualified operators are temporarily not accessible?**

If all qualified operators are temporarily not accessible (i.e., not at the facility and not able to be at the facility within 1 hour), you must meet one of the three criteria specified in paragraphs (1) through (3) of this section, depending on the length of time that a qualified operator is not accessible.

(1) When all qualified operators are not accessible for 12 hours or less, the other solid waste incineration (OSWI) unit may be operated by other plant personnel familiar with the operation of the OSWI unit who have completed review of the information specified in §113.2312(a) of this title

(relating to What site-specific documentation is required?) within the past 12 months. You do not need to notify the executive director or include this as a deviation in your annual report.

(2) When all qualified operators are not accessible for more than 12 hours, but less than 2 weeks, the OSWI unit may be operated by other plant personnel familiar with the operation of the OSWI unit who have completed a review of the information specified in §113.2312(a) of this title within the past 12 months. However, you must record the period when all qualified operators were not accessible and include this deviation in the annual report as specified under §113.2338 of this title (relating to What information must I include in my annual report?).

(3) When all qualified operators are not accessible for 2 weeks or more, you must take the two actions that are described in subparagraphs (A) and (B) of this paragraph.

(A) Notify the executive director of this deviation in writing within 10 days after the end of the 2-week period. In the notice, state what caused this deviation, what you are doing to ensure that a qualified operator is accessible, and when you anticipate that a qualified operator will be accessible.

(B) Submit a status report to the executive director every 4 weeks outlining what you are doing to ensure that a qualified operator is accessible, stating when you anticipate that a qualified operator will be accessible, and requesting approval from the executive director to continue operation of the OSWI unit. You must submit the first status report 4 weeks after you notify the executive director of the deviation under subparagraph (A) of this paragraph. If the executive director notifies you that your request to continue operation of the OSWI unit is disapproved, the OSWI unit may continue operation for 90 days, then must cease operation. Operation of the unit may resume if you meet the two requirements in clauses (i) and (ii) of this subparagraph.

(i) A qualified operator is accessible as required under §113.2307(a) of this title (relating to What are the operator training and qualification requirements?)

(ii) You notify the executive director that a qualified operator is accessible and that you are resuming operation.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2314. What emission limitations must I meet and by when?**

You must meet the emission limitations specified in Table 2 in §113.2357 of this title (relating to Tables Relating to Division 5) on the date the initial performance test is required or completed (whichever is earlier). Section 113.2321 of this title (relating to By what date must I conduct the initial performance test?) specifies the date by which you are required to conduct your performance test.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2315. What operating limits must I meet and by when?**

(a) If you use a wet scrubber to comply with the emission limitations, you must establish operating limits for four operating parameters (as specified in Table 3 in §113.2357 of this title (relating to Tables Relating to Division 5)) as described in paragraphs (1) through (4) of this subsection during the initial performance test.

(1) Maximum charge rate, calculated using one of the two different procedures in subparagraph (A) or (B) of this paragraph, as appropriate.

(A) For continuous and intermittent units, maximum charge rate is the average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(B) For batch units, maximum charge rate is the charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(2) Minimum pressure drop across the wet scrubber, which is calculated as the average pressure drop across the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations; or minimum amperage to the wet scrubber, which is calculated as the average amperage to the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(3) Minimum scrubber liquor flow rate, which is calculated as the average liquor flow rate at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(4) Minimum scrubber liquor pH, which is calculated as the average liquor pH at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with the hydrogen chloride and sulfur dioxide emission limitations.

(b) You must meet the operating limits established during the initial performance test beginning on the date 180 days after your final compliance date in Table 1 in §113.2357 of this title.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2316. What if I do not use a wet scrubber to comply with the emission limitations?**

If you use an air pollution control device other than a wet scrubber or limit emissions in some other manner to comply with the emission limitations under §113.2314 of this title (relating to What emission limitations must I meet and by when?), you must petition the United States Environmental Protection Agency (EPA) for specific operating limits, the values of which are to be established during the initial performance test and then continuously monitored thereafter. You must not conduct the initial performance test until after the petition has been approved by the EPA. Your petition must include the five items listed in paragraphs (1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as operating limits.

(2) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters, and how limits on these parameters will serve to limit emissions of regulated pollutants.

(3) A discussion of how you will establish the upper and/or lower values for these parameters that will establish the operating limits on these parameters.

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.

(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2317. What happens during periods of startup, shutdown, and malfunction?**

The emission limitations and operating limits apply at all times except during other solid waste incineration unit startups, shutdowns, or malfunctions, which must last no longer than 3 hours.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2318. How do I conduct the initial and annual performance test?**

(a) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations.

(b) All performance tests must be conducted using the methods in Table 2 in §113.2357 of this title (relating to Tables Relating to Division 5).

(c) All performance tests must be conducted using the minimum run duration specified in Table 2 in §113.2357 of this title.

(d) Method 1 of 40 Code of Federal Regulations (CFR) Part 60, Appendix A must be used to select the sampling location and number of traverse points.

(e) Method 3A or 3B of 40 CFR Part 60, Appendix A must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B of 40 CFR Part 60, Appendix A must be used simultaneously with each method.

(f) All pollutant concentrations, except for opacity, must be adjusted to 7 percent oxygen using equation 1 in §113.2356 of this title (relating to What equations must I use?).

(g) Method 26A of 40 CFR Part 60, Appendix A must be used for hydrogen chloride concentration analysis, with the additional requirements specified in paragraphs (1) through (3) of this subsection.

(1) The probe and filter must be conditioned prior to sampling using the procedure described in subparagraphs (A) through (C) of this paragraph.

(A) Assemble the sampling train(s) and conduct a conditioning run by collecting between 14 liters per minute (0.5 cubic feet per minute) and 30 liters per minute (1.0 cubic feet per minute) of gas over a 1-hour period. Follow the sampling procedures outlined in section 8.1.5 of Method 26A of 40 CFR Part 60, Appendix A. For the conditioning run, water can be used as the impinger solution.

(B) Remove the impingers from the sampling train and replace with a fresh impinger train for the sampling run, leaving the probe and filter (and cyclone, if used) in position. Do not recover the filter or rinse the probe before the first run. Thoroughly rinse the impingers used in the preconditioning run with deionized water and discard these rinses.

(C) The probe and filter assembly are conditioned by the stack gas and are not recovered or cleaned until the end of testing.

(2) For the duration of sampling, a temperature around the probe and filter (and cyclone, if used) between 120 degrees Celsius (248 degrees Fahrenheit) and 134 degrees Celsius (273 degrees Fahrenheit) must be maintained.

(3) If water droplets are present in the sample gas stream, the requirements specified in subparagraphs (A) and (B) of this paragraph must be met.

(A) The cyclone described in section 6.1.4 of Method 26A of 40 CFR Part 60, Appendix A must be used.

(B) The post-test moisture removal procedure described in section 8.1.6 of Method 26A of 40 CFR Part 60, Appendix A must be used.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2319. How are the performance test data used?**

You use results of performance tests to demonstrate compliance with the emission limitations in Table 2 in §113.2357 of this title (relating to Tables Relating to Division 5).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2320. How do I demonstrate initial compliance with the emission limitations and establish the operating limits?**

You must conduct an initial performance test, as required under 40 Code of Federal Regulations §60.8, to determine compliance with the emission limitations in Table 2 in §113.2357 of this title (relating to Tables Relating to Division 5) and to establish operating limits using the procedure in §113.2315 or §113.2316 of this title (relating to What operating limits must I meet and by when? or What if I do not use a wet scrubber to comply with the emission limitations?). The initial performance test must be conducted using the test methods listed in Table 2 in §113.2357 of this title and the procedures in §113.2318 of this title (relating to How do I conduct the initial and annual performance test?).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2321. By what date must I conduct the initial performance test?**

The initial performance test must be conducted no later than 180 days after your final compliance date. Your final compliance date is specified in Table 1 in §113.2357 of this title (relating to Tables Relating to Division 5).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2322. How do I demonstrate continuous compliance with the emission limitations and the operating limits?**

(a) You must conduct an annual performance test for all of the pollutants in Table 2 in §113.2357 of this title (relating to Tables Relating to Division 5) for each other solid waste incineration unit to determine compliance with the emission limitations. The annual performance test must be conducted using the test methods listed in Table 2 in §113.2357 of this title and the procedures in §113.2318 of this title (relating to How do I conduct the initial and annual performance test?).

(b) You must continuously monitor carbon monoxide emissions to determine compliance with the carbon monoxide emissions limitation. Twelve-hour rolling average values are used to determine compliance. A 12-hour rolling average value above the carbon monoxide emission limit in Table 2 in §113.2357 of this title constitutes a deviation from the emission limitation.

(c) You must continuously monitor the operating parameters specified in §113.2315 of this title (relating to What operating limits must I meet and by when?) or established under §113.2316 of this title (relating to What if I do not use a wet scrubber to comply with the emission limitations?). Three-hour rolling average values are used to determine compliance with the operating limits unless a different averaging period is established under §113.2316 of this title. A 3-hour rolling average value (unless a different averaging period is established under §113.2316 of this title) above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Operating limits do not apply during performance tests.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2323. By what date must I conduct the annual performance test?**

You must conduct annual performance tests within 12 months following the initial performance test. Conduct subsequent annual performance tests within 12 months following the previous one.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2324. May I conduct performance testing less often?**

(a) You can test less often for a given pollutant if you have test data for at least three consecutive annual tests, and all performance tests for the pollutant over that period show that you comply with the emission limitation. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the 3rd year and no more than 36 months following the previous performance test.

(b) If your other solid waste incineration unit continues to meet the emission limitation for the pollutant, you may choose to conduct performance tests for that pollutant every 3rd year, but each test must be within 36 months of the previous performance test.

(c) If a performance test shows a deviation from an emission limitation for any pollutant, you must conduct annual performance tests for that pollutant until three consecutive annual performance tests for that pollutant all show compliance.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2325. May I conduct a repeat performance test to establish new operating limits?**

Yes, you may conduct a repeat performance test at any time to establish new values for the operating limits. The executive director may request a repeat performance test at any time.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2326. What continuous emission monitoring systems must I install?**

(a) You must install, calibrate, maintain, and operate continuous emission monitoring systems for carbon monoxide and for oxygen. You must monitor the oxygen concentration at each location where you monitor carbon monoxide.

(b) You must install, evaluate, and operate each continuous emission monitoring system according to the "Monitoring Requirements" in 40 Code of Federal Regulations §60.13.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2327. How do I make sure my continuous emission monitoring systems are operating correctly?**

(a) Conduct initial, daily, quarterly, and annual evaluations of your continuous emission monitoring systems that measure carbon monoxide and oxygen.

(b) Complete your initial evaluation of the continuous emission monitoring systems within 180 days after your final compliance date in Table 1 in §113.2357 of this title (relating to Tables Relating to Division 5).

(c) For initial and annual evaluations, collect data concurrently (or within 30 to 60 minutes) using your carbon monoxide and oxygen continuous emission monitoring systems. To validate carbon monoxide concentration levels, use United States Environmental Protection Agency (EPA) Method 10, 10A, or 10B of 40 Code of Federal Regulations (CFR) Part 60, Appendix A. Use EPA Method 3 or 3A of 40 CFR Part 60, Appendix A to measure oxygen. Collect the data during each initial and annual evaluation of your continuous emission monitoring systems following the applicable performance specifications in 40 CFR Part 60, Appendix B. Table 4 in §113.2357 of this title shows the required span values and performance specifications that apply to each continuous emission monitoring system.

(d) Follow the quality assurance procedures in Procedure 1 of 40 CFR Part 60, Appendix F for each continuous emission monitoring system. The procedures include daily calibration drift and quarterly accuracy determinations.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2328. What is my schedule for evaluating continuous emission monitoring systems?**

(a) Conduct annual evaluations of your continuous emission monitoring systems no more than 12 months after the previous evaluation was conducted.

(b) Evaluate your continuous emission monitoring systems daily and quarterly as specified in 40 Code of Federal Regulations Part 60, Appendix F.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2329. What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems, and is the data collection requirement enforceable?**

(a) Where continuous emission monitoring systems are required, obtain 1-hour arithmetic averages. Make sure the averages for carbon monoxide are in parts per million by dry volume at 7 percent oxygen. Use the 1-hour averages of oxygen data from your continuous emission monitoring system to determine the actual oxygen level and to calculate emissions at 7 percent oxygen.

(b) Obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic average. Title 40 Code of Federal Regulations §60.13(e)(2) requires your continuous emission monitoring systems to complete at least one cycle of operation (sampling, analyzing, and data recording) for each 15-minute period.

(c) Obtain valid 1-hour averages for at least 75 percent of the operating hours per day for at least 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal or institutional solid waste.

(d) If you do not obtain the minimum data required in subsections (a) through (c) of this section, you have deviated from the data collection requirement regardless of the emission level monitored.

(e) If you do not obtain the minimum data required in subsections (a) through (c) of this section, you must still use all valid data from the continuous emission monitoring systems in calculating emission concentrations.

(f) If continuous emission monitoring systems are temporarily unavailable to meet the data collection requirements, refer to Table 4 in §113.2357 of this title (relating to Tables Relating to Division 5). It shows alternate methods for collecting data when systems malfunction or when repairs, calibration checks, or zero and span checks keep you from collecting the minimum amount of data.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2330. How do I convert my 1-hour arithmetic averages into the appropriate averaging times and units?**

(a) Use equation 1 in §113.2356 of this title (relating to What equations must I use?) to calculate emissions at 7 percent oxygen.

(b) Use equation 2 in §113.2356 of this title to calculate the 12-hour rolling averages for concentrations of carbon monoxide.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2331. What operating parameter monitoring equipment must I install, and what operating parameters must I monitor?**

(a) If you are using a wet scrubber to comply with the emission limitations under §113.2314 of this title (relating to What emission limitations must I meet and by when?), you must install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the value of the operating parameters used to determine compliance with the operating limits listed in Table 3 in §113.2357 of this title (relating to Tables Relating to Division 5). These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in Table 3 in §113.2357 of this title at all times.

(b) You must install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of any stack that could be used to bypass the control device. The measurement must include the date, time, and duration of the use of the bypass stack.

(c) If you are using a method or air pollution control device other than a wet scrubber to comply with the emission limitations under §113.2314 of this title, you must install, calibrate (to the manufacturers' specifications), maintain, and operate the equipment necessary to monitor compliance with the site-specific operating limits established using the procedures in §113.2316 of this title (relating to What if I do not use a wet scrubber to comply with the emission limitations?).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2332. Is there a minimum amount of operating parameter monitoring data I must obtain?**

(a) Except for monitor malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments of the monitoring system), you must conduct all monitoring at all times the other solid waste incineration unit is operating.

(b) You must obtain valid monitoring data for at least 75 percent of the operating hours per day for at least 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal or institutional solid waste.

(c) If you do not obtain the minimum data required in subsections (a) and (b) of this section, you have deviated from the data collection requirement regardless of the operating parameter level monitored.

(d) Do not use data recorded during monitor malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements of this division, including data averages and calculations. You must use all the data collected during all other periods in assessing compliance with the operating limits.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2333. What records must I keep?**

You must maintain the 14 items (as applicable) as specified in paragraphs (1) through (14) of this section for a period of at least 5 years.

(1) Calendar date of each record.

(2) Records of the data described in subparagraphs (A) through (H) of this paragraph.

(A) The other solid waste incineration (OSWI) unit charge dates, times, weights, and hourly charge rates.

(B) Liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable.

(C) Pressure drop across the wet scrubber system every 15 minutes of operation or amperage to the wet scrubber every 15 minutes of operation, as applicable.

(D) Liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable.

(E) For OSWI units that establish operating limits for controls other than wet scrubbers under §113.2316 of this title (relating to What if I do not use a wet scrubber to comply with the emission limitations?), you must maintain data collected for all operating parameters used to determine compliance with the operating limits.

(F) All 1-hour average concentrations of carbon monoxide emissions.

(G) All 12-hour rolling average values of carbon monoxide emissions and all 3-hour rolling average values of continuously monitored operating parameters.

(H) Records of the dates, times, and durations of any bypass of the control device.

(3) Identification of calendar dates and times for which continuous emission monitoring systems or monitoring systems used to monitor operating limits were inoperative, inactive, malfunctioning, or out of control (except for downtime associated with zero and span and other routine calibration checks). Identify the pollutant emissions or operating parameters not measured, the duration, reasons for not obtaining the data, and a description of corrective actions taken.

(4) Identification of calendar dates, times, and durations of malfunctions, and a description of the malfunction and the corrective action taken.

(5) Identification of calendar dates and times for which monitoring data show a deviation from the carbon monoxide emissions limit in Table 2 in §113.2357 of this title (relating to Tables Relating to Division 5) or a deviation from the operating limits in Table 3 in §113.2357 of this title or a deviation from other operating limits established under §113.2316 of this title with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.

(6) Calendar dates when continuous monitoring systems did not collect the minimum amount of data required under §113.2329 and §113.2332 of this title (relating to What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems, and is the data collection requirement enforceable? and Is there a minimum amount of operating parameter monitoring data I must obtain?).

(7) For carbon monoxide continuous emissions monitoring systems, document the results of your daily drift tests and quarterly accuracy determinations according to Procedure 1 of 40 Code of Federal Regulations Part 60, Appendix F.

(8) Records of the calibration of any monitoring devices required under §113.2331 of this title (relating to What operating parameter monitoring equipment must I install, and what operating parameters must I monitor?).

(9) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating limits, as applicable. Retain a copy of the complete test report including calculations and a description of the types of waste burned during the test.

(10) Records showing the names of OSWI unit operators who have completed review of the information in §113.2312(a) of this title (relating to What site-specific documentation is required?) as required by §113.2312(b) of this title, including the date of the initial review and all subsequent annual reviews.

(11) Records showing the names of the OSWI unit operators who have completed the operator training requirements under §113.2307 of this title (relating to What are the operator training and qualification requirements?), met the criteria for qualification under §113.2309 of this title (relating to How do I obtain my operator qualification?), and maintained or renewed their qualification under §113.2310 or §113.2311 of this title (relating to How do I maintain my operator qualification? or How do I renew my lapsed operator qualification?). Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(12) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

(13) Equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment.

(14) The information listed in §113.2312(a) of this title.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2334. Where and in what format must I keep my records?**

(a) You must keep each record for a period of at least five years; on site for at least 2 years. You may keep the records off site for the remaining 3 years.

(b) All records must be available in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the executive director.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2335. What reports must I submit?**

See Table 5 in §113.2357 of this title (relating to Tables Relating to Division 5) for a summary of the reporting requirements.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2336. What information must I submit following my initial performance test?**

You must submit the information specified in paragraphs (1) through (3) of this section no later than 60 days following the initial performance test. All reports must be signed by the facilities manager.

(1) The complete test report for the initial performance test results obtained under §113.2320 of this title (relating to How do I demonstrate initial compliance with the emission limitations and establish the operating limits?), as applicable.

(2) The values for the site-specific operating limits established in §113.2315 or §113.2316 of this title (relating to What operating limits must I meet and by when? or What if I do not use a wet scrubber to comply with the emission limitations?).

(3) The waste management plan, as specified in §§113.2304 through 113.2306 of this title (relating to What is a waste management plan? When must I submit my waste management plan? and What should I include in my waste management plan?).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2337. When must I submit my annual report?**

You must submit an annual report no later than 12 months following the submission of the information in §113.2336 of this title (relating to What information must I submit following my initial performance test?). You must submit subsequent reports no more than 12 months following the previous report.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2338. What information must I include in my annual report?**

The annual report required under §113.2337 of this title (relating to When must I submit my annual report?) must include the ten items listed in paragraphs (1) through (10) of this section. If you have a deviation from the operating limits or the emission limitations, you must also submit deviation reports as specified in §§113.2339 through 113.2341 of this title (relating to What else must I report if I have a deviation from the operating limits or the emission limitations?, What must I include in the deviation report?, and What else must I report if I have a deviation from the requirement to have a qualified operator accessible?).

(1) Company name and address.

(2) Statement by the owner or operator, with the name, title, and signature, certifying the truth, accuracy, and completeness of the report. Such certifications must also comply with the requirements of 40 Code of Federal Regulations §70.5(d).

(3) Date of report and beginning and ending dates of the reporting period.

(4) The values for the operating limits established pursuant to §113.2315 or §113.2316 of this title (relating to What operating limits must I meet and by when? or What if I do not use a wet scrubber to comply with the emission limitations?).

(5) If no deviation from any emission limitation or operating limit that applies to you has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period, and that no monitoring system used to determine compliance with the emission limitations or operating limits was inoperative, inactive, malfunctioning, or out of control.

(6) The highest recorded 12-hour average and the lowest recorded 12-hour average, as applicable, for carbon monoxide emissions and the highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.

(7) Information recorded under §113.2333(2)(F) and (3) through (5) of this title (relating to What records must I keep?) for the calendar year being reported.

(8) If a performance test was conducted during the reporting period, the results of that test.

(9) If you met the requirements of §113.2324(a) or (b) of this title (relating to May I conduct performance testing less often?), and did not conduct a performance test during the reporting period, you must state that you met the requirements of §113.2324(a) or (b) of this title, and, therefore, you were not required to conduct a performance test during the reporting period.

(10) Documentation of periods when all qualified other solid waste incineration unit operators were unavailable for more than 12 hours, but less than 2 weeks.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2339. What else must I report if I have a deviation from the operating limits or the emission limitations?**

(a) You must submit a deviation report if any recorded 3-hour average parameter level is above the maximum operating limit or below the minimum operating limit established under this division, if any recorded 12-hour average carbon monoxide emission rate is above the emission limitation, if the control device was bypassed, or if a performance test was conducted that showed a deviation from any emission limitation.

(b) The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2340. What must I include in the deviation report?**

In each report required under §113.2339 of this title (relating to What else must I report if I have a deviation from the operating limits or the emission limitations?), for any pollutant or operating parameter that deviated from the emission limitations or operating limits specified in this division, include the seven items described in paragraphs (1) through (7) of this section.

(1) The calendar dates and times your unit deviated from the emission limitations or operating limit requirements.

(2) The averaged and recorded data for those dates.

(3) Durations and causes of each deviation from the emission limitations or operating limits and your corrective actions.

(4) A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels.

(5) The dates, times, number, duration, and causes for monitor downtime incidents (other than downtime associated with zero, span, and other routine calibration checks).

(6) Whether each deviation occurred during a period of startup, shutdown, or malfunction, or during another period.

(7) The dates, times, and durations of any bypass of the control device.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2341. What else must I report if I have a deviation from the requirement to have a qualified operator accessible?**

(a) If all qualified operators are not accessible for 2 weeks or more, you must take the two actions in paragraphs (1) and (2) of this subsection.

(1) Submit a notification of the deviation within 10 days after the end of the 2-week period that includes the three items in subparagraphs (A) through (C) of this paragraph.

(A) A statement of what caused the deviation.

(B) A description of what you are doing to ensure that a qualified operator is accessible.

(C) The date when you anticipate that a qualified operator will be available.

(2) Submit a status report to the executive director every 4 weeks that includes the three items in subparagraphs (A) through (C) of this paragraph.

(A) A description of what you are doing to ensure that a qualified operator is accessible.

(B) The date when you anticipate that a qualified operator will be accessible.

(C) Request approval from the executive director to continue operation of the other solid waste incineration unit.

(b) If your unit was shut down by the executive director, under the provisions of §113.2313(3)(B) of this title (relating to What if all the qualified operators are temporarily not accessible?), due to a failure to provide an accessible qualified operator, you must notify the executive director that you are resuming operation once a qualified operator is accessible.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2342. Are there any other notifications or reports that I must submit?**

Yes, you must submit notifications as provided by 40 Code of Federal Regulations §60.7.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2343. In what form can I submit my reports?**

Submit initial, annual, and deviation reports electronically or in paper format, postmarked on or before the submittal due dates.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2344. Can reporting dates be changed?**

If the executive director agrees, you may change the semiannual or annual reporting dates. See 40 Code of Federal Regulations §60.19(c) for procedures to seek approval to change your reporting date.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2345. Am I required to apply for and obtain a Title V operating permit for my unit?**

Yes, if you are subject to an applicable United States Environmental Protection Agency-approved and effective Federal Clean Air Act, §111(d)/129 state or tribal plan or an applicable and effective federal plan, you are required to apply for and obtain a Title V operating permit unless you meet the relevant requirements for an exemption specified in 40 Code of Federal Regulations §60.2993.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2346. When must I submit a Title V permit application for my existing unit?**

(a) If your existing unit is not subject to an earlier permit application deadline, a complete Title V permit application must be submitted on or before the earlier of the dates specified in paragraphs (1) through (3) of this subsection. (See the Federal Clean Air Act, §§129(e), 503(c), 503(d), and 502(a) and 40 Code of Federal Regulations (CFR) §70.5(a)(1)(i).)

(1) 12 months after the effective date of any applicable United States Environmental Protection Agency (EPA)-approved Federal Clean Air Act, §111(d)/129 state or tribal plan.

(2) 12 months after the effective date of any applicable federal plan.

(3) December 16, 2008.

(b) For any existing unit not subject to an earlier permit application deadline, the application deadline of 36 months after the promulgation of 40 CFR Part 60, Subpart FFFF, applies regardless of whether or when any applicable federal plan is effective, or whether or when any applicable Federal Clean Air Act, §111(d)/129 state or tribal plan is approved by the EPA and becomes effective.

(c) If your existing unit is subject to Title V as a result of some triggering requirement(s) other than those specified in subsection (a) or (b) of this section (for example, a unit may be a major source or part of a major source), then your unit may be required to apply for a Title V permit prior to the deadlines specified in subsections (a) and (b). If more than one requirement triggers a source's obligation to apply for a Title V permit, the 12-month timeframe for filing a Title V permit application is triggered by the requirement which first causes the source to be subject to Title V. (See the Federal Clean Air Act, §503(c) and 40 CFR §70.3(a) and (b) and §70.5(a)(1)(i).)

(d) A "complete" Title V permit application is one that has been determined or deemed complete by the relevant permitting authority under the Federal Clean Air Act, §503(d) and 40 CFR §70.5(a)(2). You must submit a complete permit application by the relevant application deadline in order to operate after this date in compliance with federal law. (See the Federal Clean Air Act, §503(d) and §502(a) and 40 CFR §70.7(b).)

Adopted April 22, 2009 Effective May 14, 2009

**§113.2347. What are the requirements for temporary-use incinerators and air curtain incinerators used in disaster recovery?**

Your incinerator or air curtain incinerator is excluded from the requirements of this division if it is used on a temporary basis to combust debris from a disaster or emergency such as a tornado, hurricane, flood, ice storm, high winds, or act of bioterrorism. To qualify for this exclusion, the incinerator or air curtain incinerator must be used to combust debris in an area declared a State of Emergency by a local or state government, or the President, under the authority of the Stafford Act, has declared that an emergency or a major disaster exists in the area, and you must follow the requirements specified in paragraphs (1) through (3) of this section.

(1) If the incinerator or air curtain incinerator is used during a period that begins on the date the unit started operation and lasts 8 weeks or less within the boundaries of the same emergency or disaster declaration area, then it is excluded from the requirements of this division. You do not need to notify the executive director of its use or meet the emission limitations or other requirements of this division.

(2) If the incinerator or air curtain incinerator will be used during a period that begins on the date the unit started operation and lasts more than 8 weeks within the boundaries of the same emergency or disaster declaration area, you must notify the executive director that the temporary-use incinerator or air curtain incinerator will be used for more than 8 weeks and request permission to continue to operate the unit as specified in subparagraphs (A) and (B) of this paragraph.

(A) The notification must be submitted in writing by the date 8 weeks after you start operation of the temporary-use incinerator or air curtain incinerator within the boundaries of the current emergency or disaster declaration area.

(B) The notification must contain the date the incinerator or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, identification of the disaster or emergency for which the incinerator or air curtain incinerator is being used, a description of the types of materials being burned in the incinerator or air curtain incinerator, a brief description of the size and design of the unit (for example, an air curtain incinerator or a modular starved-air incinerator), the reasons the incinerator or air curtain incinerator must be operated for more than 8 weeks, and the amount of time for which you request permission to operate including the date you expect to cease operation of the unit.

(3) If you submitted the notification containing the information in paragraph (2)(B) of this section by the date specified in paragraph (2)(A) of this section, you may continue to operate the incinerator or air curtain incinerator for another 8 weeks, which is a total of 16 weeks from the date the unit started operation within the boundaries of the current emergency or disaster declaration area. You do not have to meet the emission limitations or other requirements of this division during this period.

(A) At the end of 16 weeks from the date the incinerator or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, you must cease operation of the unit or comply with all requirements of this division, unless the executive director has approved in writing your request to continue operation.

(B) If the executive director has approved in writing your request to continue operation, then you may continue to operate the incinerator or air curtain incinerator within the

boundaries of the current emergency or disaster declaration area until the date specified in the approval, and you do not need to comply with any other requirements of this division during the approved time period.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2348. What is an air curtain incinerator?**

(a) An air curtain incinerator operates by forcefully projecting a curtain of air across an open, integrated combustion chamber (fire box) or open pit or trench (trench burner) in which combustion occurs. For the purpose of this division only, air curtain incinerators include both firebox and trench burner units.

(b) Air curtain incinerators that burn only the materials listed in paragraphs (1) through (4) of this subsection are required to meet only the requirements in this section and §§113.2349 through 113.2355 of this title (relating to When must I comply if my air curtain incinerator burns only wood waste, clean lumber, and yard waste?, What must I do if I close my air curtain incinerator that burns only wood waste, clean lumber, and yard waste and then restart it?, What must I do if I plan to permanently close my air curtain incinerator that burns only wood waste, clean lumber, and yard waste and not restart it?, What are the emission limitations for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?, How must I monitor opacity for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?, What are the recordkeeping and reporting requirements for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?, and Am I required to apply for and obtain a Title V operating permit for my air curtain incinerator that burns only wood waste, clean lumber, and yard waste?) and are exempt from all other requirements of this division.

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

(3) 100 percent yard waste.

(4) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2349. When must I comply if my air curtain incinerator burns only wood waste, clean lumber, and yard waste?**

Table 1 in §113.2357 of this title (relating to Tables Relating to Division 5) specifies the final compliance date. You must submit a notification to the executive director postmarked within 10 business days after the final compliance date in Table 1 in §113.2357 of this title.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2350. What must I do if I close my air curtain incinerator that burns only wood waste, clean lumber, and yard waste and then restart it?**

(a) If you close your incinerator but will reopen it prior to the final compliance date in your state plan, you must meet the final compliance date specified in Table 1 in §113.2357 of this title (relating to Tables Relating to Division 5).

(b) If you close your incinerator but will restart it after your final compliance date, you must meet the emission limitations on the date your incinerator restarts operation.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2351. What must I do if I plan to permanently close my air curtain incinerator that burns only wood waste, clean lumber, and yard waste and not restart it?**

You must close the unit before the final compliance date specified in Table 1 in §113.2357 of this title (relating to Tables Relating to Division 5).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2352. What are the emission limitations for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?**

(a) Within 180 days after your final compliance date in Table 1 in §113.2357 of this title (relating to Tables Relating to Division 5), you must meet the two limitations specified in paragraphs (1) and (2) of this subsection.

(1) The opacity limitation is 10 percent (6-minute average), except as described in paragraph (2) of this subsection.

(2) The opacity limitation is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.

(b) The limitations in subsection (a) of this section apply at all times except during malfunctions, which must last no longer than 3 hours.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2353. How must I monitor opacity for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?**

(a) Use Method 9 of 40 Code of Federal Regulations (CFR) Part 60, Appendix A to determine compliance with the opacity limitation.

(b) Conduct an initial test for opacity as specified in 40 CFR §60.8 within 180 days after the final compliance date in Table 1 in §113.2357 of this title (relating to Tables Relating to Division 5).

(c) After the initial test for opacity, conduct annual tests no more than 12 months following the date of your previous test.

(d) If the air curtain incinerator has been out of operation for more than 12 months following the date of your previous test, then you must conduct a test for opacity upon startup of the unit.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2354. What are the recordkeeping and reporting requirements for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?**

(a) Keep records of results of all initial and annual opacity tests in either paper copy or computer-readable format that can be printed upon request, unless the executive director approves another format, for at least 5 years. You must keep each record on site for at least 2 years. You may keep the records off site for the remaining 3 years.

(b) Make all records available for submittal to the executive director or for an inspector's review.

(c) You must submit the results (each 6-minute average) of the initial opacity tests no later than 60 days following the initial test. Submit annual opacity test results within 12 months following the previous report.

(d) Submit initial and annual opacity test reports as electronic or paper copy on or before the applicable submittal date.

(e) Keep a copy of the initial and annual reports for a period of 5 years. You must keep each report on site for at least 2 years. You may keep the reports off site for the remaining 3 years.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2355. Am I required to apply for and obtain a Title V operating permit for my air curtain incinerator that burns only wood waste, clean lumber, and yard waste?**

Yes, if your air curtain incinerator is subject to this division, you are required to apply for and obtain a Title V operating permit as specified in §113.2345 and §113.2346 of this title (relating to Am I required to apply for and obtain a Title V operating permit for my unit? and When must I submit a Title V permit application for my existing unit?).

Adopted April 22, 2009 Effective May 14, 2009

**§113.2356. What equations must I use?**

(a) Percent oxygen. Adjust all pollutant concentrations to 7 percent oxygen using equation 1 of this section.

$$C_{adj} = C_{meas} * \frac{(20.9 - 7)}{(20.9 - \%O_2)} \quad \text{(Eq.1)}$$

Where:
$C_{adj}$ = pollutant concentration adjusted to 7 percent oxygen
$C_{meas}$ = pollutant concentration measured on a dry basis
(20.9–7) = 20.9 percent oxygen–7 percent oxygen (defined oxygen correction basis)
20.9 = oxygen concentration in air, percent
$\%O_2$ = oxygen concentration measured on a dry basis, percent

(b) Capacity of a very small municipal waste combustion unit. For very small municipal waste combustion units that can operate continuously for 24-hour periods, calculate the unit capacity based on 24 hours of operation at the maximum charge rate. To determine the maximum charge rate, use one of two methods:

(1) For very small municipal waste combustion units with a design based on heat input capacity, calculate the maximum charging rate based on the maximum heat input capacity and one of two heating values:

(A) If your very small municipal waste combustion unit combusts refuse-derived fuel, use a heating value of 12,800 kilojoules per kilogram (5,500 British thermal units per pound).

(B) If your very small municipal waste combustion unit combusts municipal solid waste, use a heating value of 10,500 kilojoules per kilogram (4,500 British thermal units per pound).

(2) For very small municipal waste combustion units with a design not based on heat input capacity, use the maximum design charging rate.

(c) Capacity of a batch very small municipal waste combustion unit. Calculate the capacity of a batch other solid waste incineration (OSWI) unit as the maximum design amount of municipal solid waste it can charge per batch multiplied by the maximum number of batches it can process in 24 hours. Calculate the maximum number of batches by dividing 24 by the number of hours needed to process one batch. Retain fractional batches in the calculation. For example, if one batch requires 16 hours, the OSWI unit can combust 24/16, or 1.5 batches, in 24 hours.

(d) Carbon monoxide pollutant rate. When hourly average pollutant rates ($E_h$) are obtained (e.g., continuous emission monitoring system values), compute the rolling average carbon monoxide pollutant rate ($E_a$) for each 12-hour period using the following equation:

$$E_a = \frac{1}{12}\sum_{j=1}^{12} E_{hj} \quad \text{(Eq. 2)}$$

Where:
$E_a$ = Average carbon monoxide pollutant rate for the 12-hour period, ppm corrected to 7 percent oxygen.
$E_{hj}$ = Hourly arithmetic average pollutant rate for hour "j," parts per million corrected to 7 percent oxygen.

Adopted April 22, 2009 Effective May 14, 2009

**§113.2357. Tables Relating to Division 5.**

(a) Table 1 of this subsection specifies the compliance schedule for Division 5 of this subchapter.

**Table 1. Compliance Schedule**

| Compliance Action | Date |
|---|---|
| Final Compliance[a] | December 16, 2010 |

[a]Final compliance means that you complete all process changes and retrofit of control devices so that, when the incineration unit is brought on line, all process changes and air pollution control devices necessary to meet the emission limitations operate as designed.

(b) Table 2 of this subsection specifies the emission limitations for Division 5 of this subchapter.

**Table 2. Emission Limitations**

| Pollutant | Emission Limitation[a] | Averaging Time | Method to Determine Compliance |
|---|---|---|---|
| 1. Cadmium | 18 micrograms per dry standard cubic meter | 3-run average (1 hour minimum sample time per run) | Method 29 of 40 CFR Part 60, Appendix A |
| 2. Carbon monoxide | 40 parts per million by dry volume | 3-run average (1 hour minimum sample time per run during performance test), and 12-hour rolling averages measured using CEMS[b] | Method 10, 10A, or 10B of 40 CFR Part 60, Appendix A and CEMS |
| 3. Dioxins/furans (total basis) | 33 nanograms per dry standard cubic meter | 3-run average (1 hour minimum sample time per run) | Method 23 of 40 CFR Part 60, Appendix A |
| 4. Hydrogen chloride | 15 parts per million by dry volume | 3-run average (1 hour minimum sample time per | Method 26A of 40 CFR Part 60, Appendix A |

| | | | |
|---|---|---|---|
| | | run) | |
| 5. Lead | 226 micrograms per dry standard cubic meter | 3-run average (1 hour minimum sample time per run) | Method 29 of 40 CFR Part 60, Appendix A |
| 6. Mercury | 74 micrograms per dry standard cubic meter | 3-run average (1 hour minimum sample time per run) | Method 29 of 40 CFR Part 60, Appendix A |
| 7. Opacity | 10 percent | 6-run average (1 hour minimum sample time per run) | Method 9 of 40 CFR Part 60, Appendix A |
| 8. Oxides of nitrogen | 103 parts per million by dry volume | 3-run average (1 hour minimum sample time per run) | Method 7, 7A, 7C, 7D, or 7E of 40 CFR Part 60, Appendix A or ANSI/ASME PTC 19.10-1981 (IBR, see 40 CFR §60.17(h)) in lieu of Methods 7 and 7C only |
| 9. Particulate matter | 0.013 grains per dry standard cubic foot | 3-run average (1 hour minimum sample time per run) | Method 5 or 29 of 40 CFR Part 60, Appendix A |
| 10. Sulfur dioxide | 3.1 parts per million by dry volume | 3-run average (1 hour minimum sample time per run) | Method 6 or 6C of 40 CFR Part 60, Appendix A or ANSI/ASME PTC 19.10-1981 (IBR, see 40 CFR §60.17(h)) in lieu of Method 6 only |

[a]All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.

[b]Calculated each hour as the average of the previous 12 operating hours.

(c) Table 3 of this subsection specifies the operating limits for incinerators and wet scrubbers for Division 5 of this subchapter.

**Table 3. Operating Limits for Incinerators and Wet Scrubbers**

| For these operating parameters | You must establish operating limits | And monitoring using these minimum frequencies | | |
|---|---|---|---|---|
| | | Data Measurement | Data Recording | Averaging Time |
| 1. Charge rate | Maximum charge rate | Continuous | Every hour | Daily for batch units. 3-hour rolling for continuous and intermittent units[a] |
| 2. Pressure drop across the wet scrubber or amperage | Minimum pressure drop or amperage | Continuous | Every 15 minutes | 3-hour rolling[a] |

| | | | | |
|---|---|---|---|---|
| to wet scrubber | | | | |
| 3. Scrubber liquor flow rate | Minimum flow rate | Continuous | Every 15 minutes | 3-hour rolling[a] |
| 4. Scrubber liquor pH | Minimum pH | Continuous | Every 15 minutes | 3-hour rolling[a] |

[a]Calculated each hour as the average of the previous 3 operating hours.

(d) Table 4 of this subsection specifies the requirements for continuous emission monitoring systems for Division 5 of this subchapter.

**Table 4. Requirements for Continuous Emission Monitoring Systems (CEMS)**

| Pollutant | Span Values for your CEMS | Performance Specifications (P.S.) in 40 CFR Part 60, Appendix B for your CEMS | If Needed to Meet Minimum Data Requirements, use the Following Alternate Methods in 40 CFR Part 60, Appendix A to Collect Data |
|---|---|---|---|
| 1. Carbon Monoxide | 125 percent of the maximum hourly potential carbon monoxide emissions of the waste combustion unit | P.S. 4A | Method 10 |
| 2. Oxygen | 25 percent oxygen | P.S. 3 | Method 3A or 3B, or ANSI/ASME PTC 19.10-1981 (IBR, see 40 CFR §60.17(h)) in lieu of Method 3B only |

(e) Table 5 of this subsection is a summary of the reporting requirements for Division 5 of this subchapter.

**Table 5. Summary of Reporting Requirements**

| Report | Due Date | Contents | Reference |
|---|---|---|---|
| 1. Initial Test Report | No later than 60 days following the initial performance test | Complete test report for the initial performance test<br>The values for the site-specific operating limits | §113.2336 of this title (relating to What information must I submit following my initial performance test?) |
| 2. Waste Management Plan | No later than 60 days following the initial performance test | Reduction or separation of recyclable materials<br>Identification of additional waste management measures and how they will be implemented | §§113.2304 through 113.2306 of this title (relating to What is a waste management plan? When must I submit my waste management plan? and What should I include in my waste management plan?) |
| 3. Annual Report | No later than 12 months following the submittal of the initial test report. | Company Name and address;<br>Statement and signature by the owner or operator;<br>Date of report and beginning and ending dates of the reporting period; | §113.2337 and §113.2338 of this title |

| | | | |
|---|---|---|---|
| | Subsequent reports are to be submitted no more than 12 months following the previous report | Values for the operating limits;<br>If no deviations or malfunctions were reported, a statement that no deviations occurred during the reporting period;<br>Highest and lowest recorded 12-hour averages, as applicable, for carbon monoxide emissions and highest and lowest recorded 3-hour averages, as applicable, for each operating parameter recorded for the calendar year being reported;<br>Information for deviations or malfunctions recorded under 40 CFR §60.2949(b)(6) and (c) through (e);<br>If a performance test was conducted during the reporting period, the results of the test;<br>If a performance test was not conducted during the reporting period, a statement that the requirements of 40 CFR §60.2934(a) or (b) were met;<br>Documentation of periods when all qualified OSWI unit operators were unavailable for more than 12 hours but less than 2 weeks | (relating to When must I submit my annual report? and What information must I include in my annual report?) |
| 4. Emission Limitation or Operating Limit Deviation Report | By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year | Dates and times of deviation from the emission limitations or operating limit requirements;<br>Averaged and recorded data for those dates;<br>Duration and causes of each deviation and the corrective actions taken;<br>Copy of operating limit monitoring data during each deviation and any test report that documents the emission levels;<br>Dates, times, and causes for monitor downtime incidents;<br>Whether each deviation occurred during a period of startup, shutdown, or malfunction; and<br>Dates, times, and duration of any bypass of the control device | §113.2339 and §113.2340 of this title (relating to What else must I report if I have a deviation from the operating limits or the emission limitations? and What must I include in the deviation report?) |
| 5. Qualified | Within 10 days of | Statement of cause of deviation; | §113.2341(a)(1) |

| | | | |
|---|---|---|---|
| Operator Deviation Notification | deviation | Description of efforts to have an accessible qualified operator; and<br>The date a qualified operator will be accessible | of this title (relating to What else must I report if I have a deviation from the requirement to have a qualified operator accessible?) |
| 6. Qualified Operation Deviation Status Report | Every 4 weeks following deviation | Description of efforts to have an accessible qualified operator;<br>The date a qualified operator will be accessible; and<br>Request to continue operation | §113.2341(a)(2) of this title |
| 7. Qualified Operator Deviation Notification of Resumed Operation | Prior to resuming operation | Notification that you are resuming operation | §113.2341(b) of this title |

**Note**: This table is only a summary, see the referenced sections of the rule for the complete requirements.