

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Part 60**

[EPA-HQ-OAR-2003-0156; FRL-8005-5]

RIN 2060-AG31

**Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units****AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Final rule.

**SUMMARY:** EPA is promulgating new source performance standards (NSPS) and emission guidelines for new and existing "other" solid waste incineration units (OSWI). The final rules for OSWI units fulfill the requirements of sections 111 and 129 of the Clean Air Act (CAA), which require EPA to promulgate NSPS and emission guidelines for solid waste incineration units. The final rules, which address only the incineration of nonhazardous solid wastes, will protect public health by reducing exposure to air pollution.

**DATES:** Amendments to § 60.17 are effective February 14, 2006. The standards for new sources in subpart EEEE of 40 CFR part 60 (sections 60.2880 through 60.2977) are effective June 16, 2006. The incorporation by reference of certain publications listed in the NSPS is approved by the Director of the Federal Register as of June 16, 2006. The emission guidelines for existing sources in subpart FFFF of 40 CFR part 60 (sections 60.2980 through 60.3078) are effective February 14, 2006. The incorporation by reference of certain publications listed in the emission guidelines is approved by the Director of the Federal Register as of February 14, 2006.

**ADDRESSES:** Docket. EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2003-0156. All documents in the docket are listed on the <http://www.regulations.gov> Web site. Although listed in the index, some information is not publicly available, *i.e.*, confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy

form. Publicly available docket materials are available either electronically through <http://www.regulations.gov> or in hard copy at EPA Docket Center (EPA/DC), EPA West Building, Room B102, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the EPA Docket Center is (202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** Ms. Mary Johnson, Combustion Group, Emission Standards Division (C439-01), U.S. EPA, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-5025; e-mail address: [johnson.mary@epa.gov](mailto:johnson.mary@epa.gov).

**SUPPLEMENTARY INFORMATION:**

**Regulated Entities.** Categories and entities potentially regulated by the final rules are very small municipal waste combustion (VSMWC) units and institutional waste incineration (IWI) units. The final OSWI emission guidelines and NSPS potentially affect the following categories of sources:

Category	NAICS code	SIC code	Examples of potentially regulated entities
Any State, local, or Tribal government using a VSMWC unit as defined in the regulations.	562213, 92411	4953, 9511	Solid waste combustion units burning municipal waste collected from the general public and from residential, commercial, institutional, and industrial sources.
Institutions using an IWI unit as defined in the regulations.	922, 6111, 623, 7121	9223, 8211, 7999	Correctional institutions, primary and secondary schools, camps and national parks.
Any Federal government agency using an OSWI unit as defined in the regulations.	928	9711	Department of Defense (labs, military bases, munitions facilities).
Any college or university using an OSWI unit as defined in the regulations.	6113, 6112	8221, 8222	Universities, colleges and community colleges.
Any church or convent using an OSWI unit as defined in the regulations.	8131	8661	Churches and convents.
Any civic or religious organization using an OSWI unit as defined in the regulations.	8134	8641	Civic association and fraternal associations.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by the final rules. To determine whether your facility is regulated by the final rules, you should examine the applicability criteria in the NSPS for new sources located at 40 CFR 60.2885 through 60.2888 of subpart EEEE, and in the emission guidelines for existing sources located at 40 CFR 60.2991 through 60.2994 of subpart FFFF. If you have any questions regarding the applicability of the final rules to a particular entity, contact the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

**Docket.** The docket number for the final NSPS (40 CFR part 60, subpart EEEE) and emission guidelines (40 CFR

part 60, subpart FFFF) is Docket ID No. EPA-HQ-OAR-2003-0156.

**Worldwide Web (WWW).** In addition to being available in the docket, an electronic copy of the final rules is available on the WWW through the Technology Transfer Network Website (TTN Web). Following signature, EPA will post a copy of the final rules on the TTN's policy and guidance page for newly proposed or promulgated rules at <http://www.epa.gov/ttn/oarpg>. The TTN provides information and technology exchange in various areas of air pollution control.

**Judicial Review.** Under CAA section 307(b)(1), judicial review of the final rules is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia by

February 14, 2006. Under CAA section 307(d)(7)(B), only an objection to the final rules that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under CAA section 307(b)(2), the requirements established by today's final action may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

Section 307(d)(7)(B) of the CAA further provides that "[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review." This section also provides a mechanism for the EPA to convene a proceeding for

reconsideration, “[i]f the person raising an objection can demonstrate to the EPA that it was impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule.” Any person seeking to make such a demonstration to the EPA should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, Ariel Rios Building, 1200 Pennsylvania Ave., NW., Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Director of the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20004.

*Organization of This Document.* The following outline is provided to aid in locating information in this preamble.

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## I. Background

Section 129 of the CAA, entitled “Solid Waste Combustion,” requires EPA to develop and adopt NSPS and

emission guidelines for solid waste incineration units pursuant to CAA section 111. Section 111(b) of the CAA requires EPA to establish NSPS for new sources, and CAA section 111(d) requires EPA to establish procedures for States to submit plans for implementing emission guidelines for existing sources. Under CAA section 111, NSPS and emission guidelines must be developed for new and existing stationary sources that cause or contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare.

Congress specifically added section 129 to the CAA to address concerns about emissions from solid waste combustion units. Section 129(a)(1) of the CAA identifies five categories of solid waste incineration units:

- (1) Units with a capacity of greater than 250 tons per day (tpd) combusting municipal waste;
- (2) Units with a capacity equal to or less than 250 tpd combusting municipal waste;
- (3) Units combusting hospital, medical and infectious waste;
- (4) Units combusting commercial or industrial waste; and
- (5) Unspecified “other categories of solid waste incineration units.”

Section 129(g)(1) of the CAA identifies several types of units that are not solid waste incineration units, including units required to have a permit under section 3005 of the Solid Waste Disposal Act (SWDA); materials recovery facilities; certain qualifying small power production facilities or qualifying cogeneration facilities which burn homogeneous waste; and certain air curtain incinerators that meet opacity limitations established by EPA.

For each category of incineration unit identified under CAA section 129, EPA must establish numerical emission limits for at least nine specified pollutants (particulate matter (PM), sulfur dioxide (SO<sub>2</sub>), hydrogen chloride (HCl), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), lead (Pb), cadmium (Cd), mercury (Hg), and dioxins and dibenzofurans), and for opacity as appropriate. Section 129 of the CAA provides EPA with the discretion to establish emission limitations for other pollutants as well. (See CAA section 129(a)(4).)

Under CAA section 129, the NSPS and emission guidelines adopted for solid waste combustion units must reflect the maximum achievable control technology (MACT). Accordingly, EPA’s standards under CAA section 129 must “reflect the maximum degree of reduction in emissions of [the listed] air pollutants \* \* \* that the

Administrator, taking into consideration the cost of achieving such emissions reductions, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing units in each category \* \* \*.” (See CAA section 129(a)(2).) However, the standards for new units must not be less stringent than the emissions control that is achieved in practice by the best controlled similar unit, and the standards for existing sources must not be less stringent than the average emissions limitations achieved by the best performing 12 percent of units in the category.

EPA previously developed regulations for each of the listed categories of solid waste incineration unit except for the undefined “other categories of solid waste incineration units.” Four notices have been published regarding OSWI regulatory development (58 FR 31358, June 2, 1993; 58 FR 58498, November 2, 1993; 65 FR 67367, November 9, 2000; 69 FR 71472, December 9, 2004). In the November 9, 2000 notice, EPA revised the OSWI regulatory schedule to include a November 2005 date for promulgation of final regulations. This deadline was subsequently incorporated into a consent decree, requiring that EPA propose regulations for the OSWI source category by November 30, 2004, and promulgate final rules by November 30, 2005. On December 9, 2004, EPA proposed NSPS and emission guidelines for OSWI units (69 FR 71472). EPA received 26 public comment letters from a variety of sources, consisting mainly of government agencies, environmental organizations, incinerator manufacturers, and various incinerator owners/operators. By today’s notice EPA promulgates final regulations for “other” (or OSWI) units.

## II. Summary of the Final Rules

### A. Do the final rules apply to me?

The final OSWI rules apply to you if you own or operate either of the following:

- (1) An incineration unit with a capacity less than 35 tpd burning municipal solid waste (MSW) (as defined in CAA section 129, 40 CFR 60.2977 of subpart EEEE, and 40 CFR 60.3078 of subpart FFFF); or
- (2) An incineration unit located at an institutional facility burning institutional waste (as defined in 40 CFR 60.2977 of subpart EEEE and 40 CFR 60.3078 of subpart FFFF) generated at that facility.

Requirements for air curtain incineration units that would otherwise be VSMWC or IWI units, but for the fact

that they burn certain materials, are discussed later in this preamble. If your incineration unit is currently meeting emission limitations and other requirements of another CAA section 129 regulation (i.e., small or large municipal waste combustion (MWC) units; hospital, medical, infectious waste incineration (HMIWI) units; or commercial and industrial solid waste incineration (CISWI) units), the final OSWI rules do not apply to you. Likewise, if an institutional combustion unit is covered under the CAA section 112 national emission standards for hazardous air pollutants (NESHAP) for industrial, commercial, and institutional boilers and process heaters (boilers NESHAP), it is not subject to the final OSWI rules. Certain types of combustion units listed in 40 CFR 60.2887 of subpart EEEE and 40 CFR 60.2993 of subpart FFFF are also excluded from the final OSWI rules.

If you began construction of your incineration unit on or before December 9, 2004, it is considered an existing unit and is subject to the emission guidelines (40 CFR part 60, subpart FFFF). If you began construction of your incineration unit after December 9, 2004, it is considered a new unit and is subject to the NSPS (40 CFR part 60, subpart EEEE).

If you began reconstruction or modification of your incineration unit prior to June 16, 2006, it is considered an existing unit and is subject to the emission guidelines. Likewise, if you begin reconstruction or modification of your incineration unit on or after June 16, 2006, it is considered a new unit and is subject to the NSPS.

*B. What emission limits must I meet?*

As the owner or operator of a new OSWI unit, you must meet the emission limits specified in table 1 of this

preamble. You must conduct an initial performance test to show compliance within 60 days after a new OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after the unit's initial startup.

As the owner or operator of an existing OSWI unit, you must meet the emission limits specified in table 1 of this preamble within 3 years after the effective date of State plan approval or by a compliance date to be established when EPA promulgates a Federal plan, but no later than December 16, 2010. The December 16, 2010 deadline is set by the statute. (See CAA section 129(f)). Thus, if EPA approves a State plan in 2009, December 16, 2010 will still be the deadline for complying. EPA plans to promulgate a Federal plan that will require compliance by December 16, 2010 in those areas that fail to submit an approvable State plan.

TABLE 1.—EMISSION LIMITS FOR NEW AND EXISTING OSWI UNITS

For these pollutants	You must meet these emission limits <sup>a</sup>	And determine compliance using these methods <sup>b,c</sup>
Cd .....	18 micrograms per dry standard cubic meter (µg/dscm).	EPA Method 29.
CO .....	40 parts per million dry volume (ppmdv) .....	EPA Methods 10, 10A or 10B.
Dioxins/Furans (total mass basis) .....	33 nanograms per dry standard cubic meter (ng/dscm).	EPA Method 23.
HCl .....	15 ppmdv .....	EPA Method 26A.
Pb .....	226 µg/dscm .....	EPA Method 29.
Hg .....	74 µg/dscm .....	EPA Method 29.
Opacity .....	10% .....	EPA Method 9.
NO <sub>x</sub> .....	103 ppmdv .....	EPA Methods 7, 7A, 7C, 7D, or 7E. <sup>d</sup>
PM .....	0.013 grains per dry standard cubic foot (gr/dscf).	EPA Method 5 or 29.
SO <sub>2</sub> .....	3.1 ppmdv .....	EPA Method 6 or 6C. <sup>e</sup>

<sup>a</sup>All emission limits (except opacity) are measured at 7 percent oxygen, dry basis at standard conditions.

<sup>b</sup>These methods are in 40 CFR part 60, appendix A.

<sup>c</sup>Compliance with the CO emission limit is determined on a 12-hour rolling average basis using continuous emission monitoring system data.

Compliance for the other emission limits is determined by stack testing.

<sup>d</sup>ASME PTC 19-10-1981-Part 10 is an acceptable alternative to only Methods 7 and 7C.

<sup>e</sup>ASME PTC 19-10-1981-Part 10 is an acceptable alternative to only Method 6.

*C. What operating limits must I meet?*

If you use a wet scrubber to comply with the emission limits, you must establish the maximum and minimum

site-specific operating limits indicated in table 2 of this preamble. You must then operate the OSWI unit so that the charge rate does not exceed the established maximum charge rate. You

must operate the wet scrubber so that the pressure drop or amperage, scrubber liquor flow rate, and scrubber liquor pH do not fall below the minimum established operating limits.

TABLE 2.—OPERATING LIMITS FOR NEW AND EXISTING OSWI UNITS USING WET SCRUBBERS

For these operating parameters	You must establish these operating limits	And monitor continuously using these recording times
Charge rate .....	Maximum charge rate .....	Every hour.
Pressure drop across the wet scrubber, or amperage to the wet scrubber.	Minimum pressure drop or amperage .....	Every 15 minutes.
Scrubber liquor flow rate .....	Minimum flow rate .....	Every 15 minutes.
Scrubber liquor pH .....	Minimum pH .....	Every 15 minutes.

**Note:** Compliance is determined on a 3-hour rolling average basis, except charge rate for batch incinerators, which is determined on a 24-hour basis.

If you use an air pollution control device other than a wet scrubber to comply with the emission limits, you must petition the EPA for approval of other site-specific operating limits to be established during the initial performance test and continuously monitored thereafter. The information you must include in your petition is described in 40 CFR 60.2917 of subpart EEEE and 40 CFR 60.3024 of subpart FFFF.

#### *D. What are the other requirements?*

As the owner or operator of a new or existing OSWI unit, you must meet the following additional requirements.

##### *Siting Analysis (new units only):*

- Submit a report that evaluates site-specific air pollution control alternatives that minimize potential risks to public health or the environment, considering costs, energy impacts, non-air environmental impacts, or any other factors related to the practicability of the alternatives.

##### *Waste Management Plan:*

- Submit 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 to reduce or eliminate toxic emissions from incinerated waste.

##### *Operator Training and Qualification Requirements:*

- Qualify operators or their supervisors (at least one per facility) by ensuring that they complete an operator training course and annual review or refresher course.

##### *Testing Requirements:*

- Conduct initial performance tests for Cd, CO, dioxins/furans, HCl, Pb, Hg, NO<sub>x</sub>, opacity, PM, and SO<sub>2</sub> and establish operating limits (i.e., maximum or minimum values for operating parameters).

- Conduct annual performance tests for all nine pollutants and opacity. (An owner or operator may conduct less frequent testing if the facility demonstrates that it is in compliance with the emission limits for three consecutive performance tests.)

##### *Monitoring Requirements:*

- Continuously monitor CO emissions.
- If using a wet scrubber to comply with the emission limits, continuously monitor the following operating parameters: charge rate, pressure drop across the wet scrubber (or amperage), and scrubber liquid flow rate and pH.
- If using something other than a wet scrubber to comply with the emission limits, monitor other operating parameters, as approved by the EPA.

##### *Recordkeeping and Reporting Requirements:*

- Maintain for 5 years records of the initial performance tests and all subsequent performance tests, operating parameters, any maintenance, the siting analysis (for new units only), and operator training and qualification. Each record must be kept on site for at least 2 years. The records may be kept off site for the remaining 3 years.

- Submit the results of the initial performance tests and all subsequent performance tests and values for the operating parameters.

- Submit annual compliance reports and semiannual reports of any deviations from the emission limits, operating limits, or other requirements.

- Apply for and obtain a title V operating permit.

#### *E. What are the requirements for air curtain incinerators?*

The final OSWI rules establish opacity limitations for air curtain incineration units that would otherwise meet the definitions of IWI or VSMWC units, but burn only:

- 100 percent wood wastes;
- 100 percent clean lumber;
- 100 percent yard waste; or
- 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

The opacity limit is 10 percent. However, 35 percent opacity is allowed during startup periods that are within the first 30 minutes of operation. Air curtain incinerators burning only these materials must meet the opacity limits and certain monitoring, recordkeeping, and reporting requirements, and must apply for and obtain a title V operating permit.

Air curtain incinerators burning other institutional waste or municipal waste must meet the requirements of the final OSWI rules including all emission limits in table 1 of this preamble and the associated testing, permitting, monitoring, recordkeeping, and reporting requirements.

#### *F. What title V permit requirements must I meet?*

All new and existing OSWI units and air curtain incinerators regulated by the final OSWI rules must apply for and obtain a title V operating permit. These title V operating permits assure compliance with all applicable Federal requirements for regulated incineration units, including all applicable CAA section 129 requirements. (See 40 CFR 70.6(a)(1), 70.2, 71.6(a)(1) and 71.2.)

The permit application deadline for a CAA section 129 source applying for a title V operating permit depends on when the source first becomes subject to the relevant title V permits program. If a regulated incineration unit is a new

unit and is not subject to an earlier permit application deadline, a complete title V permit application must be submitted on or before the relevant date below:

(1) For a unit that commenced operation as a new source on or before December 16, 2005, a complete title V permit application must be submitted not later than December 18, 2006; or

(2) For a unit that does not commence operation as a new source until after December 16, 2005, a complete title V permit application must be submitted not later than 12 months after the date the unit commences operation as a new source. (See CAA section 503(c) and 40 CFR 70.5(a)(1)(i) and 71.5(a)(1)(i).)

If your incineration unit is an existing unit and is not subject to an earlier permit application deadline, a complete title V permit application must be submitted by the earlier of the following dates:

(1) Twelve months after the effective date of any applicable EPA-approved CAA section 111(d)/129 plan (i.e., an approved State or Tribal plan that implements the OSWI emission guidelines);

(2) Twelve months after the effective date of any applicable Federal plan; or

(3) December 16, 2008.

For any existing incineration 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 CAA section 111(d)/129 plan is approved by EPA and becomes effective. (See CAA sections 129(e), 503(c), 503(d), and 502(a) and 40 CFR 70.5(a)(1)(i) and 71.5(a)(1)(i).)

If your incineration unit is subject to title V as a result of some triggering requirement(s) other than those mentioned above (for example, a unit may be a major source or part of a major source), then you may be required to apply for a title V operating permit for that unit prior to the deadlines specified above. If more than one requirement triggers a source's obligation to apply for a title V operating 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 CAA section 503(c) and 40 CFR 70.3(a) and (b), 70.5(a)(1)(i), 71.3(a) and (b), and 71.5(a)(1)(i).)

For additional background information on the interface between CAA section 129 and title V, including EPA's interpretation of CAA section 129(e), information on updating existing

title V operating permit applications and reopening existing title V permits, see the final Federal Plan for Commercial and Industrial Solid Waste Incinerators, October 3, 2003 (68 FR 57518, 57532), as well as the "Summary of Public Comments and Responses" document in the OSWI docket (EPA-HQ-OAR-2003-0156).

### III. What are the changes to the rules since proposal?

We made several revisions to the OSWI rules since proposal. As previously stated, a summary of public comments and EPA's responses to those comments is located in the docket. The following is a summary of the most significant changes.

#### Definitions

- *Institutional facility.* Replaced the term "institution," as defined at proposal, with the term "institutional facility", which was the term we intended to define. Clarified that the term "institutional facility" means land-based facility.

- *Institutional waste.* Revised the definition of "institutional waste" to be clearer and to eliminate redundancy while maintaining the same meaning as the proposed definition.

- *IWI unit and MWC unit.* Revised the definitions of "institutional waste incineration unit" and "municipal waste combustion unit" by adding "cyclonic burn barrel" as another example of an incinerator design.

- *Clean lumber and wood waste.* Clarified that the definitions of "clean lumber" and "wood waste" exclude wood products that contain adhesives.

- *Administrator and EPA.* Revised the definition of "Administrator" and added a definition for the term "EPA" to clarify our intent with respect to implementation of the final OSWI rules. "Administrator" now means (1) For approved and effective State section 111(d)/129 plans, the Director of the State air pollution control agency, or his or her delegatee; (2) For Federal section 111(d)/129 plans, 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; and (3) For NSPS, 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. "EPA" means the Administrator of the EPA or

employee of the EPA that is delegated the authority to perform the specified task.

- *Waste heat recovery.* Clarified that "waste heat recovery" occurs outside of the combustion firebox.

#### Exclusions

- *Rural IWI exclusion.* Revised the rural IWI exclusion such that in addition to the proposed requirement that the unit must be more than 50 miles from the boundary of the nearest Metropolitan Statistical Area (MSA), the unit must also be in an area "where alternative disposal options are not available or are economically infeasible." Also added provisions to require a facility to apply for the rural IWI exclusion and reapply for this exclusion every 5 years.

- *Temporary-use exclusion.* Added ice storms and high winds to the list of example disasters. Clarified that this exclusion includes air curtain incinerators. Restricted the exclusion to areas where a local, State, or Federal declaration of emergency or disaster has been proclaimed. Also revised the exclusion to require all temporary-use incinerators to submit notification if they 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 current disaster area.

- *Prohibited goods exclusion.* Limited the exclusion to incinerators "owned and/or operated by," not merely "used by" government agencies. Clarified that the exclusion applies only to goods confiscated by a government agency.

- *National security exclusion.* Determined that any IWI units used solely during military training field exercises to destroy national security materials integral to the field exercises are not subject to the final OSWI rules. Added a provision to allow other IWI units to apply for an exclusion if the units are used solely to destroy national security materials and a reliable alternative to incineration that would ensure acceptable destruction is not available.

#### Emission Limits

- *Carbon monoxide (CO) limit.* Revised the limit from 5 parts per million by volume (ppmv) to 40 ppmv on a 12-hour rolling average basis.

- *Hydrogen chloride (HCl) limit.* Revised the limit from 3.7 ppmv to 15 ppmv.

#### Testing

- Added procedures to follow when performing Method 26A tests that will

improve accuracy for testing wet scrubber-equipped incinerators.

- Clarified annual testing requirements for air curtain incinerators. If an air curtain incinerator has been out of operation for more than 12 months, it must be tested upon startup.

#### Technical Corrections and Clarifications

- In addition to the listed revisions, EPA made several technical revisions to correct cross-referencing and typographical errors and to improve clarity of the rules.

### IV. Significant Issues and Changes—Public Comments

#### A. Applicability

We received several comments on the scope and applicability of the proposed OSWI rules. These comments ranged from very specific ones dealing with a certain category of units, to more overarching comments concerning applicability of the OSWI rules in general. The following paragraphs contain the major discussions regarding applicability; additional details may be found in the summary of public comments and responses document in the docket.

#### 1. General Applicability of OSWI Rules

Two commenters expressed concern that the applicability of the proposed rules is not broad enough and that too many source categories are excluded or exempt from regulation. One commenter contended that EPA's OSWI regulation must include CAA section 129 standards for every category of solid waste incinerator that is not already regulated under CAA section 129. The commenter contended that the CAA requires EPA to set section 129 standards for any facility that combusts any solid waste, with the exception of facilities specifically exempted under CAA section 129(g)(1). The commenter made similar comments on most of the excluded types of units, stating that they should be subject to regulation under OSWI if they burn any nonhazardous waste. On the other hand, another commenter expressed support for the rationale regarding which sources will be regulated as OSWI units. The commenter urged EPA to avoid any significant changes to this stated rationale.

The CAA is ambiguous regarding what categories of solid waste incineration units must be regulated under section 129(a)(1)(E). After discussing timelines for very specific categories of solid waste incinerators (e.g., large and small municipal waste

combustors, commercial and industrial waste incinerators, and hospital and medical waste incinerators), the CAA states only that EPA must publish a schedule for promulgating standards for "other categories of solid waste incineration units." The statute does not unambiguously require, as implied by commenters, that the OSWI standards must apply to every other possible type of incineration unit burning any type of solid waste. If Congress had intended such a clear directive, it could have instructed EPA to regulate "every" other solid waste incineration unit. Yet Congress did not use such unambiguous language, leaving it to EPA to interpret the CAA in a reasonable manner. Moreover, the position adopted by commenters would lead to absurd results. Under their interpretation, a homeowner burning leaves in a barrel in his or her backyard must be subject to a CAA section 129 rule because the barrel is a unit combusting solid waste material. Congress cannot have intended that EPA regulate such sources under section 129, with all the attendant requirements. The language of section 129 suggests that Congress wanted to focus EPA's attention to specific, larger incineration units (e.g., MWC units and CISWI units). Under this commenter's interpretation of section 129, however, EPA would have to establish MACT floors and emissions standards for dozens of different types of small incineration units with potentially minimal emissions.<sup>1</sup> It takes an enormous effort and use of resources to develop a MACT floor and write a section 129 standard, and Congress cannot have meant that EPA would undertake that substantial effort a multitude of times merely by instructing EPA to address "other" categories of solid waste incineration units (assuming EPA even has the resources to undertake such efforts). Moreover, sources subject to section 129 standards must obtain title V operating permits and undertake extensive testing, monitoring, and recordkeeping even if EPA does not require additional controls under the section 129 standard, and regardless of the level of emissions from the sources. As noted elsewhere, EPA estimates that the costs of these requirements alone can more than quadruple the costs of owning and operating an incinerator. Again, Congress cannot have intended that every "incineration" unit as defined by the commenter, regardless of its size or its impact on public health

<sup>1</sup> Total emissions of the regulated air pollutants from all units in the two subclasses regulated by the final OSWI rules are estimated to total only 2,272 tons per year.

and the environment, would have to shoulder these burdens merely by referencing an undefined "other" category of incineration units at section 129(a)(1)(E). Thus, the instructions to EPA to promulgate standards for "other categories" of solid waste incinerators inherently include the authority for EPA to reasonably delineate those "other" categories of solid waste incineration units.

Thus, appropriately, the first step in EPA's rulemaking process was determining what universe of sources will be subject to the regulations. The statutory provisions of CAA sections 129(a), (g) and (h) make it clear that EPA must, as a part of the regulatory process, define which combustion units should be subject to regulation under CAA section 129 and hence, to which categories of solid waste combustion units the standards for "other categories of solid waste incineration units" apply. For example, the reference in CAA section 129(g)(1) to a permit issued under section 3005 of the SWDA, refers to units burning hazardous solid waste. This effectively limits the scope of EPA's authority under CAA section 129 to the regulation of solid waste incineration units that burn nonhazardous solid waste. In determining the scope of OSWI, EPA collected and analyzed data to identify potential OSWI units and determined that the regulations should focus on two categories of waste combustion units that are not regulated elsewhere: IWI units and VSMWC units. In the proposed rules, we also clarified that certain types of units are not regulated by the OSWI rules. Some of these units are specifically excluded by CAA section 129 (e.g. hazardous waste combustion, small power production facilities, cogeneration facilities burning homogeneous waste). We also clarify that units are not covered under OSWI if they are already regulated under other CAA section 129 or CAA section 112 standards (e.g., small and large MWC, HMIWI, CISWI, boilers, cement kilns). The language of CAA section 129(h) makes clear the Congressional intent for CAA regulations under section 129 or section 112 to be mutually exclusive. Accordingly, sources subject to CAA section 112 standards are not OSWI units. Absence of regulation under CAA section 112, however, is not determinative of whether a unit is subject to the final OSWI rules.

Moreover, we do not agree that the "small power production facilities" or "qualifying cogeneration facilities" described in CAA section 129(g)(1) are the only types of energy recovery facilities that are properly excluded

from the OSWI category. We do not read section 129(g)(1) to establish an exclusive list of excluded sources. (See *National Wildlife Federation v. Gorsuch*, 693 F.2d 156, 172 (D.C.Cir.1982) (use of the term "includes" allows for additional, unstated meanings); *Chemehuevi Indian Tribe v. California St. Bd. of Equalization*, 757 F.2d 1047, 1054 (9th Cir.1985), rev'd on different grounds, 106 S.Ct. 289 (1985) ("includes" is a term of enlargement, not of limitation); *United States v. Huber*, 603 F.2d 387, 394 (2d Cir. 1979), cert. denied, 100 S.Ct. 1312 (1980) (use of the word "includes," rather than a more restrictive term such as "means," indicates that the list is not exhaustive but merely illustrative).)

As stated earlier, the final OSWI rules regulate IWI and VSMWC units. However, we determined that some subclasses of OSWI units should be handled differently due to unusual circumstances (e.g., unique geographic locations or climatic factors, temporary emergency use) that would prevent owners or operators of these units from having a feasible alternative waste disposal method. The availability of technically and economically feasible waste disposal alternatives is important because, as stated in the preamble to the proposed rules, CAA section 129 rules must contain testing, permitting, monitoring, recordkeeping, and reporting requirements. These requirements alone would easily double or triple the cost of operating a smaller incinerator like those covered by the final OSWI rules. Therefore, we expect CAA section 129 rules (even if they did not require air pollution controls) to force many incinerators to shut down and utilize alternative waste disposal options. However, for unique subclasses of units where such alternatives are not available, compliance with a rule would be infeasible yet shutdown of these units also is not an acceptable alternative. We excluded certain such subclasses from the final OSWI rules for the reasons described in the preamble to the proposed rules and in responses to comments. Of course, EPA and States may still regulate these subclasses under other provisions of the CAA, as necessary. (See CAA section 110(a)(2).)

## 2. Units With Energy Recovery and Other Types of Combustors

Two commenters questioned the rationale of excluding incinerators (one commenter specified IWI units) with energy recovery from the definition of solid waste incinerators, and believe that an incinerator burning waste should be regulated as a waste

incinerator, no matter how the produced heat is used.

First, we note that the energy recovery comment applies to IWI units, as all VSMWC units, with or without energy recovery, are subject to the final OSWI regulations. Those MWC units that recover energy serve dual purposes: (1) The disposal of municipal solid waste, and (2) energy recovery from the combustion of the waste. As a result of these dual purposes, MWC units are often boilers by design. The inclusion of a specific definition of "municipal waste" in CAA section 129 and other indications of Congressional intent support EPA's position that all MWC units should be regulated under section 129 of the CAA regardless of whether the MWC unit serves another purpose. The regulatory boundaries established in the rules for the large and small MWC units are quite clear that MWC units, regardless of their configuration, are regulated under section 129 of the CAA. Our intent is to maintain this interpretation in our regulation of VSMWC units under the final OSWI regulations. In summary, VSMWC units that are incinerators without energy recovery, incinerators with waste heat recovery, and boilers are all regulated under the final OSWI rules. See below for further discussion.

The regulatory boundaries for IWI units, however, are not clearly defined by the CAA. As we have discussed, for the IWI subcategory of OSWI, EPA must define which types of sources should be included in the subcategory. In the process of developing the OSWI rules, developing the boilers NESHAP (promulgated at 69 FR 55218, September 13, 2004), developing rules for area source boilers, promulgating requirements for electric utility steam generating units (70 FR 28606, May 18, 2005), and establishing rules applicable to other combustion sources, EPA must map the regulatory boundaries that identify which units are subject to section 129.

The distinction between IWI units and non-IWI combustion units is not readily apparent. For example, there is general agreement that coal that is combusted in a boiler is not waste, because coal is commonly thought of as a fuel. However, there are many other materials that are burned in institutional boilers for energy recovery. Such materials could include wood, paper, other biomass, plastics, and other items. Combustion of such materials, when burned in a boiler with energy recovery, is addressed under CAA section 112 regulations for boilers. EPA has determined that for purposes of the IWI subcategory of OSWI units, the critical

consideration in determining whether the unit is burning institutional waste is the primary function of the combustion unit; and the primary indicator of function is whether or not a unit is designed and operated for energy recovery. On one hand, boiler units are specifically designed to recover the maximum amount of heat from combustion of a material. The boilers NESHAP covers combustion units at institutional facilities that burn solid materials and recover heat in the combustion firebox. Incineration units, on the other hand, are designed to discard materials by burning them at high temperatures and leaving as little residue as possible. Although incineration units do not have energy recovery in the combustion firebox, they may be followed by waste heat recovery units. Combustion units at institutional facilities that burn solid materials and do not recover heat in the combustion firebox, but do recover waste heat from the hot combustion gases following the combustion firebox, would not be covered by the boilers NESHAP. Waste heat recovery units are designed to cool the exhaust gas stream from an incineration unit, and/or recover, indirectly, the useful heat remaining in the exhaust gas. The presence of a waste heat recovery unit on the exhaust gas does not change the fact that the unit combusting the material is primarily an incineration unit burning waste for disposal purposes. EPA does not consider it appropriate to regulate such units as boilers. Therefore, we have determined that IWI units are those units that combust materials with only waste heat recovery (i.e., heat recovery outside of the combustion firebox) or without energy recovery.

Our focus on the primary function of the unit to identify institutional waste is consistent with the provisions in section 129 of the CAA that apply to MWC units. In section 129, Congress specifically defined municipal waste as "refuse (and refuse-derived fuel) collected from the general public and from residential, commercial, institutional, and industrial sources \* \* \*." (See 42 U.S.C. section 7429(g)(5).) This definition goes on to list specific materials included in municipal waste and exclude incineration units combusting 30 percent or less municipal waste from the MWC standards. This definition of municipal waste provides more specific meaning to the phrase "solid waste \* \* \* from the general public" set forth in section 129(g)(1) of the CAA. Based on the definition of municipal waste in section 129(g)(5), EPA has interpreted

section 129 to cover all MWC units, including waste-to-energy facilities that have energy recovery as part of their integral design. When CAA section 129 was developed, EPA had already taken steps to promulgate new source performance standards and emissions guidelines for MWC units under section 111 of the CAA. Thus, by defining "municipal waste" in this manner in section 129(g)(5), Congress determined that MWC units should be regulated as under section 129 even if the MWC unit serves another purpose (e.g., energy recovery). This determination is consistent with our approach in the final OSWI rules because a primary function of a MWC unit is waste disposal.

In contrast, Congress did not define "other solid waste incineration unit" or other types of "waste." Thus, the CAA is ambiguous regarding whether every unit that burns material for energy recovery should be regulated under section 129 of the CAA. We have interpreted the CAA to allow EPA to consider the primary function of the combustion units in making the determination of whether particular units should be subject to CAA section 129. For reasons discussed earlier, this question is harder to answer in the context of institutional facilities where certain combustion units have been historically considered boilers, rather than incinerators, based on the combustion of solid materials commonly regarded as fuels. However, in the case of municipal waste combustors, there has been little or no disagreement among industry, government agencies, and environmental groups on the meaning of MSW and the fact that the section 129 rules cover all MWC units. Thus, we did not have to address this issue at length in the MWC rules. (See 69 FR 7394, n.5.)

One of the commenters also contended that EPA has not proposed standards for all solid waste combustion technologies. The commenter listed pyrolysis, thermal oxidation, catalytic cracking, plasma arcs, catalytic oxidation, flameless thermal oxidizers, and gasification as technologies that have been used to combust solid waste, despite not having the name "incineration."

EPA notes that the commenter did not provide any details regarding these other technologies or the materials that are processed by these technologies. Some of these types of units may well be covered under the CAA section 129 final OSWI rules. For example, pyrolysis/combustion units (two chamber incinerators with a starved air primary chamber followed by an

afterburner to complete combustion) within the VSMWC and IWI subcategories are considered OSWI units. In addition, thermal oxidizers, catalytic oxidizers, and flameless thermal oxidizers, if used to combust solid waste, could be subject to the final OSWI rules or other section 129 rules if they meet the appropriate applicability requirements. It is important to note, however, that these types of units often are used to combust uncontained gases (generally from industrial processes) and are not used to dispose of solid waste. Such units would not be subject to the final OSWI rules. The other types of units mentioned by the commenter appear to be either: (1) part of industrial processes (e.g. catalytic cracking) and are regulated under CAA section 112 and other standards for the specific industrial process; (2) noncombustion thermal technologies that operate with an external heat source (e.g. plasma arc); or (3) technologies that are specifically designed to prevent combustion reactions, and, instead are used to produce fuel or chemical feedstocks via controlled chemical reactions (e.g. gasification). Any of these technologies that are used to process hazardous waste are excluded from CAA section 129, and any of these technologies that are regulated as site remediation units under CAA section 112 are also not subject to section 129.

### 3. Potential OSWI Subcategories Where No Units Could Be Identified

One commenter contended that EPA's failure to identify any units burning manure or livestock bedding, wood waste, or construction and demolition waste does not excuse EPA from setting emission standards for such units.

EPA made significant attempts to identify incinerators in determining which types of sources to regulate under the final OSWI rules. As part of the industrial combustion coordinated rulemaking (ICCR), we sent a questionnaire to nearly 12,000 facilities identified as having a combustion unit (including boilers, heaters, and incinerators) burning non-fossil materials. This included every facility we could identify from Federal and State databases and stakeholder input. We received responses from the vast majority of these facilities, although many were no longer operating their incinerators. These responses provided design and operating information on over 1,100 combustion units burning wood. However, all of these sources were either boilers or process heaters with integral energy recovery that are being addressed under CAA section 112, or commercial or industrial incineration

units that are appropriately regulated under CISWI. We are not aware of, nor has the commenter provided any information on, any other wood-fired units remaining for consideration as potential OSWI units.

Similarly, a few units were identified that combust agricultural residues such as bagasse, rice hulls, etc. for the purpose of energy recovery, and, thus, are all boilers and are being addressed under CAA section 112. Prior to proposal of the OSWI rules, we updated the ICCR list of potential OSWI units by searching the latest version of the national emissions inventory (NEI), which contains the latest data from State databases and various Federal programs, for incineration units burning non-fossil materials. We also contacted State agriculture departments to request information on agricultural incineration; contacted trade associations; contacted incinerator vendors to determine what types of incinerators they have been selling and to what markets; and performed Web searches. After these extensive efforts, we were not able to locate any incineration units in several potential subclasses described in the preamble to the proposed rules. This result is not surprising because vendor contacts and feedback from facilities that used to operate OSWI units have shown us that the use of incineration for waste disposal is declining, especially where the units do not recover energy. Given our prior efforts to identify these types of units and the trends in incineration, we do not believe that these types of units currently operate. Furthermore, public commenters on the proposed rules have not provided specific information on any such sources. Because we are unable to locate such units and have no data on them, we are not, and indeed cannot regulate them at this time.

Public commenters on the proposed rules have not provided any information demonstrating that there are agricultural waste incinerators, construction or demolition incinerators, or wood waste incinerators that are not boilers. EPA cannot set a standard under CAA section 129 without adequate operating, emissions, and control technology information for sources within the category. Thus, contrary to the commenter's suggestion, EPA could not speculate or estimate and set a CAA section 129 standard "just in case." Therefore, because we are unable to locate any such units and have no data on how such hypothetical units, if used in the future, may operate, we are not including agricultural waste, construction or demolition, or wood

waste incinerators as subcategories of OSWI.

### 4. Rural Institutional Waste Incinerators

Two commenters suggested that the exemption for rural IWI units is too broad. One commenter contended that the locations proposed to be exempted include many areas where solid waste collection and disposal services are readily available at reasonable cost, and, therefore, the exemption is not justified. The commenter also contended that this raises questions regarding environmental justice, as the exemption implies that economically disadvantaged communities should have worse air quality standards because they are economically disadvantaged. Furthermore, the commenter pointed out that U.S. Government facilities (i.e., Department of Defense) do not have the limited tax base and, therefore, EPA's reasons for the rural exemption do not apply. Both commenters recommended that the rural exemption be narrowed further to include only those areas where landfills or other nonincineration options are not available or feasible.

To address commenters' concerns, EPA is narrowing the rural IWI exclusion to apply only to those IWI units that are more than 50 miles from the boundary of the nearest MSA and where alternative disposal options are not available or are economically infeasible. In the final OSWI rules, there are provisions that specify how a facility may apply for this exclusion. For existing units, the application must be submitted to the Administrator at least 1 year before the final compliance date to ensure that there is adequate time for any additional dialogue necessary to determine if an exclusion is warranted, and, if the exclusion is denied, adequate time for the facility to install controls or otherwise arrange for disposal of their waste. For new units, the application must be submitted to and approved by the Administrator prior to initial startup.

By narrowing the exclusion to include only those areas "where alternative disposal options are not available or are economically infeasible," we have addressed the commenter's concern that we should not exempt sources located where waste disposal alternatives are available at a reasonable cost. Our analysis of remote institutional waste disposal costs indicates that a 50 mile distance to dispose of waste is approximately the distance where the costs of operating an incinerator (without control technology) would equal those of taking the waste to a landfill, transfer station, or small or

large MWC unit. As such, we believe that 50 miles from a MSA is a minimum point where institutional facilities would be able to make a legitimate case that they qualify for the exclusion. To clarify the geographical criteria, the MSA definitions that will be used as one component of the exclusion are based upon those found in AUpdated Statistical Definitions and Their Uses' OMB Bulletin 05-02, February 22, 2005.

We realize that, over time, population density changes may cause revisions to the definitions of MSA that would affect the rural status of a rural IWI unit. Furthermore, there may be situations where alternative waste disposal options become available such that the unit may not be able to demonstrate adverse economic impacts of using an alternative means of disposal or the IWI unit is no longer necessary to the institutional facility. To address these situations, we are adding provisions that require sources granted an exclusion as a rural IWI unit to reapply for the exclusion every 5 years following the date the exclusion is granted by the Administrator. If the Administrator finds that the IWI unit no longer qualifies for the exclusion, then the unit is given 3 years to comply with the requirements of the final OSWI rules.

In response to the second issue put forth by the commenter, we disagree that we are implying that economically disadvantaged communities should have worse air quality. As we have discussed in the preamble to the proposed rules, some disposal alternatives to incineration, such as open burning, are worse for air quality than incineration. If the rural institutional facility is unable to afford compliance and there are no other disposal alternatives (e.g., landfills, MWC), then the facility may resort to open burning, littering, or dumping. Open burning presents not only air pollution problems, but can also lead to an increased likelihood of accidental fires. Littering and dumping pose problems such as potential contamination of streams or other water bodies, and attracting vermin and wild animals, which could contribute to disease transmission. The facility, in applying for the rural IWI exclusion, must make a case that suitable alternatives, such as landfilling or hauling waste to a MWC unit, are not available or are not economically feasible. Although we discussed concerns about the local tax base for school districts in the preamble to the proposed rules, it was but one reason for the exclusion which applies to all rural IWI units, not just those located at schools. Thus, other institutions (e.g.,

Federal facilities, churches) may apply for the exclusion, although we note that certain institutions with larger budgets may have a harder time showing that alternative waste disposal options are economically infeasible.

#### 5. Alaskan Exclusion

Three commenters requested that the exclusion for incinerators in isolated areas of Alaska be broadened. Two commenters expressed concern that the proposed rules do not exempt VSMWC units used to combust municipal-type waste generated at oil-field base operations facilities and remote camps on Alaskan oil fields.

EPA stresses that the final OSWI rules apply only to VSMWC and IWI units, and they provide an exclusion for units used at solid waste disposal sites in Alaska that are classified as Class II or Class III municipal solid waste landfills. If the incinerators operated by the commenters meet the definition of VSMWC units and are used at solid waste disposal sites in Alaska that are classified as Class II or Class III municipal solid waste landfills, then they would be excluded from the final OSWI rules. We have insufficient information about the units operated by these commenters (e.g., operating at an oil exploration site or oil-field base camp) to determine if they are VSMWC units, but they appear to be operated by industrial or commercial entities and would likely not meet the definitions of a VSMWC or IWI unit in the final OSWI rules. To be a VSMWC unit under the final OSWI rules, the incinerator must be burning municipal solid waste collected from multiple sites. To be an IWI unit under the final OSWI rules, the incinerator must be located at an institutional facility (i.e., land-based facility owned and/or operated by an organization having a governmental, educational, civic, or religious purpose) and be burning waste generated at that institutional facility. Incinerators at an industrial or commercial facility that burn only waste generated on site at that facility are not VSMWC or IWI units. If the commenter's units are not VSMWC or IWI units, they would not be subject to the final OSWI rules. We recognize that the final CISWI rules do not currently cover commercial/industrial-owned/operated incinerators that burn only municipal-type waste. EPA intends to address regulation of such combustion units under future revisions to the final CISWI rules.

A commenter also expressed concern that the proposed definitions of institution and institutional waste are excessively restrictive and do not fit the unique situations that arise in Alaska.

The commenter gave examples such as the existence of 'unorganized' boroughs that have no local government or tax base.

EPA's understanding of the local government structure in Alaska is that there are two types of local government structures: boroughs and unorganized areas. Boroughs, like counties, are collections of one or more municipalities joined in a regional government. Unorganized areas are the non-borough areas where there is either (1) no intermediate government between the State and the tribal, village, or city council, and local government is strictly at the municipal level or (2) no governing body other than the State. We have provided an exclusion for units used at solid waste disposal sites in Alaska that are classified as Class II or Class III municipal solid waste landfills. The State of Alaska does not consider the local government structure in determining the class of a municipal solid waste landfill or waste disposal site. The Class II and III determinations are based on the anticipated waste volume and location of the waste disposal site. Further, the incinerators that dispose of municipal solid waste 'collected from' these boroughs and unorganized areas would be VSMWC units, rather than IWI units, so the commenter's concerns regarding the definitions of institution and institutional waste with respect to incinerators serving these local government structures are not relevant.

We would also like to clarify that an incinerator operated by a commercial entity that is burning municipal solid waste that is 'collected from' multiple residences and any local businesses would be considered a VSMWC unit subject to OSWI regulation, provided that it had a capacity of less than 35 tpd of municipal solid waste. This situation is quite common among the small and large MWC units, as several municipalities have contracted or partnered with commercial operators in the construction and operation of their local MWC facility.

In summary, the final OSWI rules apply only to VSMWC and IWI units. As previously described, we have provided an exclusion for units used at solid waste disposal sites in Alaska that are classified as Class II or Class III municipal solid waste landfills, as well as an exclusion for rural IWI units (for IWI located more than 50 miles from the boundary of the nearest MSA and where alternative disposal options are not available or are economically infeasible). These exclusions fully address small OSWI units in remote areas of Alaska that do not have

technically or economically feasible disposal alternatives, so the concerns raised by the commenters are addressed in the final OSWI rules.

#### 6. Temporary-Use Incinerators

*Exclusion Requirements.* Commenters contended that the proposed requirements for temporary-use incinerators used in disaster recovery are too lax and invite abuse. The commenters pointed out that the Stafford Act, which provides for a State of Emergency or a major disaster to be declared by a State government or the President of the U.S., does not contain any provisions for declaring that the State of Emergency or disaster has ended. As such, under the proposed rules, these incinerators arguably would be allowed to operate indefinitely without any restrictions. One of these commenters contended that, under the proposed rules, operators of portable incinerators could declare 'Aemergencies' or 'Adisasters' at their discretion, and travel from place to place burning any sort of debris without any pollution controls, restrictions of location, or public and agency notification requirements. Another commenter stated that the exemption would allow an uncontrolled unit to operate for up to 8 weeks without adequate cause or approval from the proper authority and suggested earlier notification.

EPA agrees that incinerator owner/operators should not be allowed to declare their own 'Aemergencies' and that was not our intent. We have adjusted the rules as proposed to exclude temporary-use incinerators used to combust debris for a limited period of time from most requirements of these subparts only if they are used in areas that have been declared a State of Emergency by a State or local government, or if the President, under the authority of the Stafford Act, has declared that an emergency or major disaster exists in the area. The inclusion of local disaster area declarations in this exclusion encompasses those disasters that severely affect a municipality or county and require the local government to undertake disaster recovery actions, but where the economic losses are not large enough or sufficiently widespread to require extensive State or Federal financial assistance.

EPA also agrees that some notification and oversight should be required to avoid temporary-use incinerators being operated indefinitely in areas that are declared States of Emergency by the State, local or Federal government. The final rules require that operators of temporary-use incinerators combusting

debris in declared emergency or disaster areas notify the Administrator if it is necessary for the units to combust debris within the boundaries of a given emergency or disaster area for more than 8 weeks from the date the units began operation, and request permission to continue to operate. EPA's intent is that if a unit is used during a period that begins on the date the unit started operation and lasts 8 weeks or less, then that unit is excluded from the requirements of the final rules. A unit that operates intermittently for 8 weeks or less over a period longer than 8 weeks from the date the unit started operation (e.g., over a 12-week period) does not meet the requirement for exclusion.

The notification must be submitted in writing by the date 8 weeks after the temporary-use incinerator begins operating within the boundaries of the current emergency or disaster area. The notification must contain the date the incinerator began operation within the current emergency or disaster area, identification of the disaster or emergency for which the incinerator is being used, a description of the types of materials being burned, information on the size and design of the incinerator, the reasons the incinerator must be operated for more than 8 weeks, and the additional amount of time for which permission to operate is requested, including a date for ceasing operation. Upon submittal of the notification, the temporary-use incinerator automatically may operate for another 8 weeks (a total of 16 weeks from the date the unit started operation). At the end of 16 weeks, the temporary-use incinerator must cease operation or comply with the OSWI emission limits and other requirements of the final OSWI rules unless the Administrator has approved the request to continue operation.

Given these changes, 16 weeks will be the maximum length of time a temporary-use incinerator can operate in a given area declared a State of Emergency or major disaster without specific permission to continue operation from the Administrator. The approval of the request to continue operating must establish a site-specific date to cease operation. We have chosen this approach, rather than setting a uniform maximum amount of time because a case-by-case approval process allows EPA and States to set the appropriate time limits for the specific situation.

We decided that the notification should be provided within 8 weeks after the start of operation to be consistent with the timing in the proposed rules for areas that had not been declared

emergencies or major disasters by the State or Federal government. In emergency situations, quick removal of debris is of utmost importance to maintain public health and safety, and temporary-use incinerators may be best suited to dispose of debris. We have elected not to regulate incinerators used on a short-term basis to recover from an emergency or disaster under the final OSWI rules, because regulation would hinder the recovery effort and this impact would outweigh the benefits from regulation of the units. Recent events in the Gulf States due to Hurricanes Katrina, Rita, and Wilma have illustrated the importance of immediate recovery action following a disaster. This proactive approach, which addresses the terms for use of a temporary-use incinerator during declared emergencies or disasters, is better than an approach that requires EPA and others to react during or immediately after such an emergency or disaster strikes. We also point out that States and the Federal government have specific procedures that are followed in declaring an area a State of Emergency or a major disaster area. Their procedures involve extensive involvement by local, State, and Federal officials to conduct a preliminary damage assessment, develop debris removal plans, and coordinate and manage disaster assistance activities. Further information on the processes can be found on individual State Web sites and on the Federal Emergency Management Agency (FEMA) Web site (<http://www.fema.gov>). Given that there is already a coordination process and we do not intend to regulate temporary-use incinerators operated for 8 weeks or less, an earlier notification requirement in the final OSWI rules is not necessary or productive.

Finally, in responding to a separate comment regarding air curtain incinerators, we reviewed and clarified the exclusions for which air curtain incinerators may qualify. In doing this review, we realized that air curtain incinerators were not specifically mentioned in the exclusion for temporary-use incinerators used in disaster or emergency recovery efforts. To remedy this, we are clarifying that the temporary-use incinerators used in disaster or emergency recovery efforts exclusion includes air-curtain incinerators used for these purposes. We realize that air curtain incinerators may be particularly useful in disaster recovery efforts, and intend that they may also qualify for this particular exclusion.

*Control Feasibility.* Another commenter contended that EPA has not

explained why it is infeasible for temporary-use incinerators to include air pollution controls or how requiring controls would delay commencement of operation. Therefore, the commenter concluded, EPA has provided no basis for the assumption that controlling emissions from temporary-use incinerators would hinder recovery efforts.

Declared States of Emergency and major disasters are, by definition, serious events. In emergency situations, quick removal of debris is of utmost importance to maintain public health and safety. Depending on the type of emergency and the local situation, there may be no reasonable and safe alternatives to incineration. Regulation, under the final OSWI rules, of temporary-use incinerators used for disaster recovery efforts would discourage use of such incinerators, potentially hindering recovery efforts and impairing public health and safety. The emission limits in the final OSWI rules are based on wet scrubbing for any IWI and VSMWC units other than air curtain incinerators burning only clean lumber, wood waste, and yard waste. The annual cost of a wet scrubber and the monitoring, recordkeeping, and reporting required by the rules (including annualized capital cost of the scrubber and monitoring equipment, and annual operation and maintenance (O&M), permitting and reporting costs) may be more than six times the cost of owning and operating an uncontrolled incinerator. Even if the final OSWI rules were to require no add-on control of such incinerators, it is estimated that the annual cost of the testing, monitoring, recordkeeping and reporting required by CAA section 129 could more than quadruple the cost of owning and operating the incinerator. These sharp increases in regulatory compliance costs relative to the current cost of incineration would discourage use of incinerators. Furthermore, as evidenced by the recent recovery efforts due to Hurricanes Katrina, Rita, and Wilma, the water supply, handling and treatment capabilities required to operate the wet scrubber may be unavailable for long periods of time in the disaster areas, while the need for recovery is immediate. In such situations, the incinerator cannot stand idly by while awaiting ancillary services to operate the scrubber.

We also point out that the exclusion for emergency cleanup activities of short duration is not unique to the final OSWI rules. Other CAA programs and rules recognize the need to make allowances for similar situations. For example, the site remediation NESHAP (40 CFR part

63, subpart GGGGG) provide an exclusion for site remediation activities that are completed within 30 consecutive calendar days. The preamble for the proposed rule explained that, "This exemption is intended to apply to contamination commonly caused by a spill where the cleanup is initiated soon after the spill event and is of very short duration (i.e., typically 30 days or less). The purpose of this exemption is to encourage prompt attention to remediating contaminant spills and leakages" (67 FR 49407, June 30, 2002). Similarly, the OSWI exclusion of temporary-use incinerators encourages prompt clean-up of debris from emergencies and disasters and excludes only temporary-use incinerators that operate for a limited period of time within a declared disaster area.

#### 7. Sewage Sludge Incinerators

Two commenters were unsure how the proposed rules treat sludge incinerators. Both commenters requested that EPA clarify if, and how, commercial and municipal sludge incinerators are addressed by the final OSWI standards.

Sewage sludge incinerators (SSI) are a source category that is being addressed under CAA section 112. As early as April 2000, EPA indicated that it no longer intended to regulate SSI under section 129 of the CAA:

The Agency has decided not to regulate sewage sludge incinerators as a category under Section 129 of the Clean Air Act \* \* \*. The Agency believes that sewage sludge generated by publicly-owned treatment works (POTWs) and combusted in SSIs is "solid waste." However, this sludge is from a municipal source, and not from "commercial or industrial establishments or the general public." Therefore, SSIs that combust this sludge are not "solid waste incineration units" and section 129 does not apply to them. Virtually all of the SSIs that would be candidates for regulation combust sludge from POTWs, and thus are not covered under Section 129.

(Unified Agenda, 65 FR 23459-01 (April 24, 2000).) In addition, EPA's intent to regulate these sources under CAA section 112 was made clear when SSI were included as an additional area source category listed pursuant to CAA sections 112(c)(3) and 112(k)(3)(B)(ii) in the June 26, 2002 **Federal Register** (67 FR 43113). As discussed previously, source categories regulated by CAA section 112 may not also be subject to a CAA section 129 regulation. In previous regulatory activities, EPA was unable to identify any SSI that were major sources. (See 67 FR 6521, February 12, 2002.) Therefore, the entire SSI source category consists of area

sources, and will be addressed by the CAA sections 112(c) and 112(k) regulations. Sewage sludge incinerators do not meet the definitions of IWI or VSMWC units in the final OSWI rules and, thus, are not regulated as OSWI units.

#### 8. National Security Incineration Units

In the preamble to the proposed OSWI rules, EPA requested comment on whether a subclass of IWI units that burn national security documents should be excluded from the final OSWI regulations. Three commenters opposed excluding incinerators that burn national security documents from regulation and contended that EPA did not explain or justify the reason to exclude these units. However, another commenter expressed concern that there could be situations in which the only viable alternative for the destruction of classified materials would be the use of an OSWI unit. Another commenter requested EPA provide an exclusion to the final OSWI rules for units used for sanitization of classified or otherwise sensitive materials by the U.S. Armed Forces, the Department of Energy, and other similar agencies.

We have determined that any IWI units used solely during military training field exercises to destroy national security materials integral to the field exercises are not subject to the final OSWI rules. We have determined that an outright exclusion for other IWI units used to destroy national security materials will not be provided in the final OSWI rules. However, the final rules contain provisions such that individual sources may apply for this type of exclusion as necessary. We understand that mechanical destruction or other alternatives to incineration are available for most, if not all, categories of national security materials. Thus, we think that, as a general matter, few incineration units will meet this exclusion on a long-term basis. Nonetheless, this exclusion is needed for two reasons. First, the government could change the acceptable means of disposing of one or more types of national security materials in the future. Second, there may be unexpected circumstances when mechanical or other alternative means of destruction are temporarily unavailable, requiring the use of backup incineration units during those periods. To be granted an exclusion, a source/governmental entity must demonstrate that the unit is used solely to incinerate national security materials and that a reliable alternative to ensure acceptable destruction of national security materials is unavailable on either a permanent or

temporary basis. An "acceptable" level of destruction is one that meets applicable regulations, guidelines, or instructions for the destruction of national security materials. For existing units, the request must be submitted to the Administrator prior to 1 year before the final compliance date, and the Administrator will either grant or deny the request for exclusion. For new units, the request must be submitted to and approved by the Administrator prior to initial startup. The final rules contain specific provisions for applying for this exclusion.

#### 9. Various Other Applicability Issues

**Cyclonic Burn Barrels.** One commenter asked if cyclonic burn barrels are subject to the OSWI regulations. The commenter recommended that EPA explicitly include these devices as regulated entities subject to all the requirements of the final OSWI regulations.

It was our intent to regulate cyclonic burn barrels that meet the definition of an IWI unit or VSMWC unit under the final OSWI rules. An IWI unit is a combustion unit, regardless of size, located at an institutional facility (i.e., land-based facility owned and/or operated by an organization having a governmental, educational, civic, or religious purpose) that burns solid waste generated at that institutional facility. A VSMWC unit is a combustion unit that has the capacity to burn less than 35 tpd of municipal solid waste collected from residential, commercial, institutional, and industrial sources. We agree that cyclonic barrel burners are a type of incinerator because they provide an enclosure (barrel) in which the waste is burned and include a fan to provide high-velocity air flow and an exhaust outlet, and we did not exclude them in the proposal. To clarify our intent to regulate this type of OSWI unit, we are including "cyclonic burn barrel" as another example of an incinerator design in the final rules' definitions of IWI unit and MWC unit. We would like to note that the final OSWI rules regulate only IWI and VSMWC units. For example, if a cyclonic burn barrel is used at a commercial or industrial facility to burn commercial or industrial solid waste, then it would not be subject to the final OSWI rules.

**Human Crematories.** Two commenters objected to the exemption of human crematories from the proposed rules. Both commenters argued that the incineration of human bodies emits significant quantities of mercury and other hazardous air pollutants. One commenter objected to EPA's conclusion that human bodies are

not solid waste and noted that EPA defines solid waste under the SWDA as any "discarded material." The definition also clarifies that a material is "discarded" if it is "burned or incinerated."

Clean Air Act section 129 regulations deal solely with solid waste combustion units. As noted in the preamble to the proposed rules, in considering the nature of human crematories, EPA has determined that the human body should not be labeled or considered "solid waste." Therefore, human crematories are not solid waste combustion units, and are not a subcategory of OSWI for regulation.

We disagree with the commenter's assertions that human bodies are discarded and that CAA section 129 rules must consider a material to be "discarded" if it is "burned or incinerated." The definition of "discarded" referred to by the commenter is found in 40 CFR part 261, which defines "hazardous waste" for the purpose of implementing the hazardous waste program authorized by the SWDA. In defining "hazardous waste," 40 CFR part 261 also defines "solid waste" and elaborates on the meaning of "discarded," which is a term used in the definition of solid waste. However, in doing so, 40 CFR part 261 states explicitly in 40 CFR 261.1(b)(1) that this definition of solid waste is only for the purpose of materials that are hazardous wastes. Much of the complexity and specificity of the 40 CFR part 261 definitions is needed to assure that hazardous waste is properly identified, tracked, transported, and disposed of, and is not inappropriately discarded or abandoned. The 40 CFR part 261 details on the meaning of solid waste and discarded are not found in solid waste definitions within the Resource Conservation and Recovery Act (RCRA) rules pertaining to nonhazardous wastes (e.g., 40 CFR part 240 through 40 CFR 259). The regulatory definitions of "solid waste" and "discarded" found in 40 CFR part 261, therefore, do not apply to nonhazardous solid wastes. Section 129 of the CAA regulates only nonhazardous solid wastes. As described in previous **Federal Register** notices pertaining to the proposed and final CISWI rules (64 FR 67104, November 30, 1999 and 65 FR 75342, December 1, 2000) EPA has adopted, under the joint authority of the CAA and RCRA, a definition of solid waste that is used solely to identify nonhazardous solid waste for the regulatory programs authorized by CAA section 129, such as the final CISWI and OSWI rules. The definition of discarded cited by the commenter is not

applicable to CAA section 129 rules. However, as stated in the preamble to the proposed OSWI rules, if EPA or States determine in the future that human crematories should be considered for regulation, they would be addressed under other authorities.

**Animal Crematories.** One commenter expressed support for the proposed decision to exclude animal crematories as a regulated subcategory of the proposed OSWI rules and supports the proposed exclusion of pathological waste incineration units. The commenter pointed out that the other alternatives to incineration, such as rendering, burial, composting or feeding of the carcass to exotic animals does not address the need for disposal of animal carcasses with an infectious disease. Another commenter contended that animal crematories are solid waste incineration units that must be regulated under CAA section 129.

EPA has not changed our decision to exclude animal crematories and pathological waste incineration units, based on our analysis of their emissions and the adverse impacts that would occur if these units were regulated under the final OSWI rules, as fully described in the preamble to the proposed rules and in the response to comments document.

**Additional Possible Subcategories of OSWI Units.** In the preamble to the proposed rules, we requested comment on whether other subclasses of OSWI units existed and if any special and/or extenuating circumstances existed that warranted their exclusion from regulation under OSWI. We received only one communication related to this request.

The U.S. Coast Guard (USCG) informed EPA that they were concerned that the rules, as proposed, could be interpreted to include incinerators located on ships. According to the USCG, some of its largest cutter classes have small shipboard solid waste incinerators that are used to dispose of solid waste generated aboard ship while the ship is at sea. The USCG indicated that they believed these incinerators should not be subject to the final OSWI rules.

It was never EPA's intent to regulate incinerators aboard USCG patrol ships or other ships, and EPA's analyses supporting the final OSWI rules have not included information about shipboard incinerators. Thus, EPA has not only replaced the definition of "institution" with "institutional facility" to be consistent with terminology used elsewhere in the final OSWI rules, but we also have defined

“institutional facility” to apply to land-based incinerators.

We note that the use of wet scrubbers on ships raises the question of whether it is even technically feasible to locate wet scrubbers on ships (including the availability of fresh water for the scrubber systems), and, moreover, begs the question of how the ships would then dispose of the wastewater generated by the scrubbers. If a shipboard incinerator could not meet the standards, the incinerator would have to shut down. Yet, many ships have onboard incinerators to dispose of the solid waste generated on these ships while at sea (e.g., patrolling U.S. borders), without having to come into port or otherwise change their route in order to dispose of the solid waste using an alternative means.<sup>2</sup>

### B. Definitions

#### 1. “Clean Lumber” and “Wood Waste” Definition

Two commenters suggested that the definitions of “clean lumber” and “wood waste” found in 40 CFR 60.2977 and 40 CFR 60.3078 should explicitly exclude manufactured wood products containing adhesives. Examples of such products include plywood, particle board, flake board, and oriented-strand board (OSB). One commenter noted that questions regarding whether manufactured wood products are considered “clean lumber” or “wood waste” continue to arise, and recommended that EPA improve the final rules by specifically excluding these adhesive-treated wood products from the definitions of “clean wood” and “wood waste.”

These definitions are important in the final OSWI rules because there are reduced requirements for air curtain incinerators that burn only clean lumber or wood waste. We agree with the commenter, and our intent was to exclude wood products manufactured with adhesives and resins from the definitions of “clean lumber” and “wood waste.” The proposed definition of “clean lumber” excluded wood that has been painted, stained or pressure-treated; and the proposed definition of “wood waste” limited wood waste to “untreated” wood and wood products, but did not specify the meaning of “untreated.” Adhesives, like paints, can contain hazardous pollutants and we did not intend for air curtain

incinerators burning these materials to qualify for the reduced requirements. To clarify our intent, we have expanded the second sentence in the definition of clean lumber to state, “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).” We have also revised the definition of “wood waste” by adding a fourth item to the list of items that wood waste does not include: “(4) 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).”

#### 2. Municipal Solid Waste

One commenter noted that the definition of MSW in the proposed OSWI regulations is not the same definition used in previous CAA section 129 regulations (i.e., MWC regulations found in 40 CFR part 60, subparts Ea, Eb, Aaaa, and Bbbb). The commenter understands that EPA is using language from CAA section 129(g)(5) for the definition of MSW, but disagreed with the proposal’s use of “collected from” in the definition of MSW. The commenter noted that units at apartment complexes or retail stores, or units located at industrial sites burning office paper are not covered as VSMWC units because of the “collected from” language in the proposed OSWI rules, and they are not covered by the final CISWI rules. The commenter contended that this would leave a very important type of incinerator unregulated, noting especially incinerators located at grocery stores.

We are retaining the proposed definition of “municipal solid waste” in the final OSWI rules to be consistent with CAA section 129, which defines “municipal waste” as “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 \* \* \*.” To be a VSMWC unit that is subject to the final OSWI rules, a unit must combust waste

that is “collected from” multiple establishments. Under this definition, incinerators owned/operated by commercial businesses, such as grocery stores or apartments, that burn waste generated on site rather than collected from multiple establishments are not considered VSMWC units and are not covered by the final OSWI rules.

As the commenter points out, the final CISWI rules (40 CFR part 60, subparts CCCC and DDDD) currently exclude units burning MSW as defined in the final large and small MWC rules (40 CFR part 60, subparts Ea, Eb, Aaaa, and Bbbb). These other rules do not include the “collected from” language in their definitions of MSW. Therefore, the final CISWI rules currently exclude some industrial and commercial units that burn wastes such as paper, cardboard, and food wastes that are generated on site but are not associated with the manufacturing process. The commenter is concerned that such units will not be subject to any CAA section 129 rules. As stated in the preamble to the proposed OSWI rules (69 FR 71480, December 9, 2004), under the CAA section 129 definition of “municipal waste,” small incinerators that are located at commercial businesses (such as stores, restaurants and apartments) or industrial sites are not VSMWC units because they do not burn waste which has been “collected from.” Such units are properly addressed under the final CISWI rules, because of their location at commercial and industrial sites. EPA intends to address regulation of such combustion units under future revisions to the final CISWI rules.

### C. MACT Floors and Emission Limits

#### 1. MACT Floors

*New Units.* One commenter stated that EPA must base floors on emission levels achieved by the best controlled unit, not on the technology that the unit uses or emission levels that EPA deems achievable with such technology, and contended that EPA did not consider the effect of waste composition on a unit’s performance when setting the MACT floor for new units. The commenter argues that because EPA has not demonstrated that medical waste is comparable to the waste combusted in a VSMWC or IWI unit, EPA has not supported the assumption that the average performance of a medical waste incinerator equipped with a wet scrubber is representative of the actual performance of the best performing VSMWC or IWI unit.

In the preamble to the proposed rules, we noted that EPA does not have emissions test data for the OSWI units

<sup>2</sup> In order to effectively police U.S. borders, help secure national security and carry out research activities, many of these ships must have the maximum flexibility to stay at sea as long as is necessary to accomplish their mission, with a minimum of disruption, such as having to come into port to dispose of solid waste.

in the OSWI inventory. Therefore, we were unable to determine the best controlled OSWI unit based on OSWI emission levels. However, our OSWI inventory indicated that only one OSWI unit contained an add-on control device. This control device is identified as a "medium efficiency wet scrubber." EPA utilized information on control devices to help categorize the category of similar units whose actual emissions data would then be used to set the floor (i.e., the best performing similar unit, or an incinerator equipped with a medium efficiency wet scrubber in this case). As we discussed in the preamble to the proposed rules, we do have emissions test data for HMIWI units, which are similar to OSWI units. Our emissions data for HMIWI indicates whether the unit is equipped with a wet scrubber, but does not indicate the efficiency (e.g., low, medium, or high) for which the scrubber is designed. Therefore, to develop emission limits that are representative of what a medium efficiency wet scrubber can achieve, we averaged all emissions data for HMIWI units equipped with wet scrubbers. In using this approach, we have also accounted for the variability of emissions testing for waste combustion units. Any single emission test is merely a "snapshot" of the emission level from the unit. The same unit tested a month later may have a lower or higher emission rate. Thus, selecting the best single emission test (the lowest "snapshot") does not reflect the emission limit that is continuously achieved over time. Taking the average of emission tests from multiple units of similar design with wet scrubbers accounts for the inherent variability of the data. By taking the average of all performance data, we have considered data from wet scrubber-equipped units that are both better than, and worse than, the proposed emission limits, but should nonetheless be continuously achieved by a unit equipped with a medium efficiency wet scrubber. For perspective, we also note that this floor analysis approach results in limits for most pollutants that are more stringent than the limits for HMIWI units and large and small MWC units.

Although the data we used to develop the emission limits are from HMIWI units, the commenter does not contend that HMIWI and OSWI units are not similar in size, design, or operation. While the commenter argues that medical waste may not be comparable to MSW or institutional waste, they do not provide any data to support their concern or to demonstrate that emissions from OSWI units are lower

than emissions from HMIWI units with the same control technology. To address these concerns, we have further considered the compositions of medical waste and MSW. Both types of waste contain a range of materials including paper, plastics, metal, glass, food waste, and other materials. However, within both categories there can be a wide variety of composition depending on the specific sources that generated the waste, geographic location, and any separation practices used prior to combustion. Given the variability within each waste type, we cannot conclude that incinerating one or the other would result in higher emissions. We find the wastes to be generally similar in composition based on the general types of materials contained in the waste and the very limited data available on the proportions of paper, plastic, metals, and other materials contained in the waste. Considering the similarities in combustion unit size, design, operations, and waste composition, we have determined that the emission levels actually achieved by HMIWI units equipped with wet scrubbers are an appropriate basis for setting the MACT floor for new OSWI units. Therefore, in the absence of emissions data on OSWI units, we have determined that HMIWI units are a similar source and we plan to continue to use the emission limits based on the HMIWI data as proposed, with the exception of revisions to the CO and HCl emission limits that were necessary to address other comments (discussed later in this section).

*Existing Units.* In a comment similar to that for new units, one commenter stated that floors for existing units do not reflect the average emission level achieved by the best performing 12 percent of units in each category or subcategory. The commenter argued that EPA's MACT floor approach for existing units ignored the effect of waste input on emissions performance. As an example, the commenter specifically points out that the lead floor level of 4,300 µg/dscm would be worse than the actual performance of an OSWI unit burning waste that did not contain lead, and that EPA has not provided any reason to believe that these units would burn any waste containing that level of lead.

As previously stated, we do not have data on actual emissions from OSWI units, thus we had to use emissions data from similar, existing units. EPA utilized information on control devices used at the best performing 12 percent of existing OSWI units not to set the floor number itself (as the commenter suggests), but to help characterize the

category of similar units whose actual emissions data would then be used to set the floor—small, uncontrolled, modular/starved air MWC units.

With regard to the commenter's contention that, in determining the floor, EPA did not consider the effect of waste input on emissions performance, OSWI units combust diverse and heterogeneous mixtures of wastes. For example, VSMWC units burn MSW that contains metals including lead in varying amounts, and materials separation techniques cannot achieve complete removal of lead or other compounds. In setting emission limits for large and small MWC units under CAA sections 129 and 111, EPA examined materials separation techniques and proposed materials separation requirements, but ultimately decided not to require materials separation prior to combustion. We stated that "the variable and heterogeneous nature of municipal solid waste makes quantification of such emission reductions associated with removal of various materials technically infeasible" (56 FR 5496, February 11, 1991). Subsequent revisions of the section 129 large and small MWC rules in 1995, 1997, and 2000 also did not require materials separation or use it as the basis for determining the MACT floors. The same waste variability and materials separation considerations and constraints that applied in development of the final large and small MWC rules also apply to the final OSWI rules.

We acknowledge that there are limited emissions data available for the floor level of control (i.e., uncontrolled two-chamber incineration units), but also point out that we have gone beyond the floor in the selection of emission limits based upon the use of a wet scrubber. From a practical standpoint, any potential change in the floor emission levels would not have any effect on the final emission limits selected. Therefore, we do not see a need to re-evaluate the floor emission levels used in our prior analysis because it would most likely not lead us to establish different MACT limits.

*Combined Subcategories.* In the preamble to the proposed rules, we requested comment on whether we should combine the two subcategories (i.e., IWI and VSMWC) and determine a single MACT floor and emission limits for new OSWI units. Likewise, we made a similar request regarding combination of subcategories for existing units. We did not receive any public comments in response to these requests. We have not changed the subcategories or approach to determining the MACT floors.

## 2. Carbon Monoxide

Two commenters considered the CO emission limit of 5 parts per million (ppm) (at 7 percent oxygen (O<sub>2</sub>)) to be unrealistically low. Another commenter contended that a medium efficiency wet scrubber cannot reduce CO to 5 ppm, as CO is not water soluble and water will not affect the concentration.

We agree with the commenters' assertions that a wet scrubber is not an effective control device for CO emissions. As we have discussed previously, we used emissions test data for wet scrubber-equipped HMIWI units to develop the proposed emission limits for new and existing OSWI units. As one commenter observed, the CO emission limit for HMIWI is 40 ppmv. The HMIWI emission limit was based on data from CO continuous emission monitoring systems (CEMS), and was determined to be the emission limit continuously achieved on a 12-hour rolling average basis. However, when we developed the proposed OSWI emission limits, we used performance test data from HMIWI units instead of CEMS data to develop CO and other pollutant emission limits. Although this approach for CO was simple and consistent with the other pollutants, it was not adequate to address the large quantity of data, including its variability, that was considered when the HMIWI CO emission limit was developed. Because CO is the only pollutant for which the final OSWI rules require CEMS for existing and new units, we are revising the emission limit to better account for the large volume of data generated by the CEMS and the amount of inherent variability that occurs when generating continuous data. The new CO limit is 40 ppmv over a 12-hour rolling average. This limit is consistent with a previously promulgated HMIWI emission limit for a source category similar to OSWI, and is also the lowest CO emission limit of any of the CAA section 129 rules.

## 3. Hydrochloric Acid

One commenter believes the proposed HCl standard is unachievable and should be revised to no lower than 20 ppm because EPA Method 26A generally is not adequate for demonstrating compliance with an HCl standard below 20 ppm at sources with wet scrubbers.

We have considered the commenter's assertion that EPA Method 26A is not adequate for demonstrating compliance with a HCl standard below 20 ppm when sampling sources with wet scrubbers. Although it is not evident that there is an outright problem, we

now have a more mature understanding of applicability of EPA Method 26A in certain environments. Therefore, we acknowledge that a tester may need to take certain precautions to ensure that there is no bias when sampling streams with HCl concentrations at or below the 3.7 ppmv emission limit as proposed. For example, there is the need to precondition the filter with stack gas because the filter may absorb, adsorb, or react with some of the HCl in the stack gas resulting in a number biased low. Water droplets may also affect the results of the test. Additional procedures may be required to eliminate any droplets within the sampling train. As we discussed previously, we used test data from wet scrubber-equipped HMIWI units to develop the proposed emission limits for OSWI units. Unfortunately, we do not know if the personnel conducting the HMIWI compliance emission tests that we used to develop the 3.7 ppmv proposed OSWI emission limit took special precautions to prevent a low bias when sampling and testing for HCl. To address this uncertainty in the data and the commenter's concerns, we are amending the HCl emission limits in the final OSWI rules to 15 ppmv. This is the same limit contained in the final HMIWI rules, and HMIWI units equipped with wet scrubbers are demonstrating compliance with a 15 ppmv limit.

We also note that there were no public comments received on testing concerns for the 15 ppmv emission limit in the final HMIWI rules. Although this is higher than the proposed HCl emission limit, it is the lowest HCl emission limit of any CAA section 129 rule and is clearly achievable by wet scrubber-equipped units similar to OSWI units. To ensure that there is no bias in compliance test data, we are including provisions in the final OSWI rules that require sources to condition the filter before testing, and use a cyclone and post test purge if water droplets may be present.

### *D. Title V Operating Permits*

#### 1. Air Curtain Incinerators

We received a number of comments regarding air curtain incinerators and the title V operating permit requirements of the proposed OSWI rules. The majority of these pertained to air curtain incinerators burning only wood waste, clean lumber, and yard waste. For instance, several commenters contended that the requirement for air curtain incinerators burning only wood waste, clean lumber, and yard waste to obtain a title V operating permit is not justified either legally or in terms of

environmental outcome and is inconsistent with previously promulgated solid waste combustion regulations.

We disagree with the commenters' conclusions and so noted in our response to similar comments in the final rule for the CISWI Federal plan (68 FR 57518, October 3, 2003). During proposal for the CISWI Federal plan, we clearly stated our interpretation that the CAA requires permitting under title V for sources subject to rules written pursuant to CAA sections 129 and 111. As is the case here, commenters questioned our position on this matter by contending that by not specifically referring to title V requirements in prior rulemakings, we were indirectly expressing our position that title V regulations were not applicable. To the contrary, we knew that 40 CFR part 70 or 40 CFR part 71 title V requirements would apply to any rules written under CAA section 129 or 111 and presumed no additional language was needed in those rules to convey the need to meet the title V requirements. Given prior comments to the effect that such presumptions were misplaced, we responded by first saying that we were specific in the proposal about the need for title V operating permits for air curtain incinerators subject to the CISWI Federal plan for the purpose of clarifying that need. We did so in order to clearly present EPA's view of such sources' title V obligations, and to answer questions such as those voiced by the prior commenters due to the absence of such specific language in the CISWI emission guidelines and NSPS. Those prior comments are similar to the comments now under discussion. At 68 FR 57527, we stated that EPA has consistently maintained that operating permits are needed for air curtain incinerators subject to NSPS and to State plans drafted pursuant to emission guidelines. However, communications we received following promulgation of the CISWI emission guidelines and NSPS pointed to the advisability of specifically clarifying the matter in the preamble to the CISWI Federal plan and in the final rule itself. Thus, to facilitate the application of title V to these sources, we specifically included in the CISWI Federal plan language describing the need for title V operating permits. To further eliminate any doubt as to the need for OSWI air curtain incinerators to obtain title V operating permits, as is the case for all other classes of air curtain incinerators, we clearly restated that requirement in 40 CFR 60.2994, subpart FFFF, as proposed.

Two commenters concluded that the term "solid waste incineration unit" is

defined in CAA section 129(g)(1) to specifically exclude "air curtain incinerators provided that such incinerators only burn wood wastes, yard wastes and clean lumber and that such air curtain incinerators comply with opacity limitations to be established by the Administrator by rule." As a result, this means that permitting or other requirements applicable to "solid waste incineration units" in CAA section 129 do not apply to such air curtain incinerators in the same way that they do not apply to hazardous waste combustors, materials recovery facilities, and qualifying small power production facilities, all of which also are specifically excluded from the definition of "solid waste incineration unit." In addition to questioning EPA's use of authority under CAA section 129 to require title V operating permits, commenters were cognizant that in the **Federal Register** notice promulgating the CISWI Federal plan that we had also expressed an opinion that section 129 also invokes authority of CAA section 111, thus triggering the provisions of CAA section 502. Section 502 of the CAA requires that sources subject to section 111 must obtain title V operating permits. Commenters expressed a number of opinions about the interplay of CAA section 502 to the purpose of trying to make a case that the section 502 provision for exempting classes of nonmajor sources should be applied in the case of OSWI air curtain incinerators.

EPA believes that a facility should have a title V operating permit in order to avail itself of the air curtain incinerator exclusion. Absent this exclusion and demonstrated compliance with the opacity limit therein, air curtain incinerators would be "solid waste incineration units" and, therefore, subject to a plethora of requirements under CAA section 129, including the requirement to obtain a title V operating permit. The initial step in effectuating the exemption is for EPA to use available statutory authority to establish applicable opacity limits. In this case, EPA clearly stated in the preamble to the proposed OSWI rules (69 FR 71482, December 9, 2004) that it is relying on the authority of CAA section 129 to establish these limits. Once EPA has established applicable opacity limits, it must have a mechanism for tracking compliance with the limit(s) and with the restrictions on the types of materials the air curtain incinerator unit in question can burn. The mechanism available through section 129 is an operating permit issued in accordance with title V of the CAA. Congress clearly

evidenced an intent to require all units subject to requirements established pursuant to CAA section 129 to obtain a title V operating permit in enacting section 129(e) of the CAA, thus it is appropriate for EPA to use such permits to ensure that units which claim to be entitled to the benefit of the provision in section 129(g)(1) are in fact so entitled.

Two commenters requested that EPA acknowledge a distinction between air curtain incinerators that are "portable" and those that are "stationary." One commenter noted that in the States that are using this approach, the "portable" unit is brought to a site and used on waste material generated on that site and a "stationary" unit has waste material brought to the unit from off site. The commenter suggested that "portable" applications should be subject to a simple permitting process that is no more complicated than an open burning permit. The other commenter asked that EPA clarify its position on whether air curtain incinerators are temporary or stationary sources.

First, regardless of whether an air curtain incinerator subject to CAA section 129 is transported from site to site or is used at the same site on a continuous basis, it is considered a stationary source under 40 CFR part 70 and 40 CFR part 71 and is required to obtain a title V operating permit. Air curtain incinerators that are transported from site to site are considered temporary sources as long as their operations are temporary and they are moved at least once during the term of their permits. (See 40 CFR 70.6(e) and 40 CFR 71.6(e).) Temporary-use incinerators (whether they are air curtain incinerators or other types of incinerators) used in disaster recovery and that meet the requirements of 40 CFR 60.2969 or 40 CFR 60.3061 are not, however, required to obtain a title V operating permit. This is because the exclusion-allowing provisions noted above (or a section 111(d) plan developed pursuant to them) do not trigger the requirement to apply for a title V permit. If the requirements in 40 CFR 60.2969 or 40 CFR 60.3061 are met, only temporary-use incinerators that are otherwise subject to title V permitting would be required to apply for and obtain a title V permit.

As to the commenter's concern regarding the process for permitting air curtain incinerators which are temporary sources, a permitting authority may issue a single permit to the owner or operator of these incinerators, thereby authorizing emissions by the same source owner or

operator at multiple temporary locations. (See section 504(e) of the CAA and 40 CFR 70.6(e) and 40 CFR 71.6(e).) In order to track the location of temporary sources, the owners or operators of these sources must notify the relevant permitting authority at least 10 days in advance of each change in location. For more information regarding the requirements for temporary sources, see the statutory and regulatory cites noted above.

As mentioned earlier, there were a number of comments on air curtain incinerators and title V operating permits. While the above discussion covers the majority of the issues regarding these units and title V requirements, we encourage interested parties to review the response to comments document for a complete discourse on the title V comments we received and our response to those comments.

## 2. Unit Closure and Title V Operating Permits

One commenter expressed a concern that units planning to close within the 3 years allowed by the proposed emission guidelines would potentially have to apply for title V operating permits. The commenter asked EPA to clarify in the final rules that sources either need to close by the time their title V permit application is due or that a title V permit application is not required for sources closing by the final compliance date.

The timing of title V permit application deadlines is established by law (see sections 129(e), 503(c), 503(d), and 502(a) of the CAA). As such, EPA has no authority to exempt from this requirement sources planning to close. Sources planning to close after the permit application deadline may continue operations until the closure deadline as long as the permit application deadline is met. Sources cannot legally operate after the initial title V permit application deadline without having submitted a complete title V application by this deadline (see CAA section 503(c) and 40 CFR 70.5(a)(1)(i), 71.5(a)(1)(i), 70.7(b), and 71.7(b)). Sources planning to close can explain the procedures and timing associated with their closures in their title V permit applications. Such an explanation will provide the permitting authority with much needed information and will allow the permitting authority to take an anticipated closure into account as it drafts the source's title V permit.

### E. Testing

One commenter noted that air curtain incinerators normally operate for a few weeks at any one project site. For these units, the commenter noted that the proposed rules require an initial test for opacity within 180 days after the final compliance date and annual tests to be conducted no more than 12 months following the date of the previous test. For stationary units or units frequently in operation, this may be acceptable, but for units that may go months or years between uses it is not clear when the opacity test would be required. As an addendum, the commenter also asked who would be responsible for conducting the test because these units are usually rented.

We acknowledge the commenter's concern regarding annual testing requirements for air curtain incinerators that may not be used for months or years. To address this, we are amending the testing requirements for air curtain incinerators that burn only wood waste, clean lumber and yard waste to require opacity testing upon startup if the unit has been unused and out of operation for more than 12 months following the last opacity test.

Regarding the commenter's question on testing responsibility if the unit is rented, we would generally expect the owner (lessor) of the unit to perform testing and maintain records of compliance testing for the unit being rented. In this situation, the operator (lessee) is responsible for obtaining all necessary documentation (e.g., performance test data) demonstrating that the unit is in compliance from the owner (lessor) and maintaining the documentation on site with the air curtain incinerator. The operator (lessee) in all situations is responsible for correctly operating the unit, burning only allowable materials, being aware of all compliance requirements (i.e., testing, monitoring, recordkeeping and reporting), and making sure the unit is in compliance while operating the unit. However, given the various arrangements that may exist between owners and operators, different lengths of time a unit may be operated at a particular site, etc., EPA and State regulatory and enforcement agencies have discretion to determine which of the parties is responsible for compliance activities or noncompliance issues on a case-by-case basis.

### F. Impacts

One commenter contended that EPA's use of national average costs and "typical" units in determining impacts may have overlooked the impact that

the OSWI rules would have on small local governments, school districts and small nonprofit organizations. The commenter expressed concern that EPA's certification that the rules, as proposed, will not have a significant economic impact on a substantial number of small entities is not based on an adequate analysis of IWI units operated by small entities.

The final OSWI rules provide exclusions for some sources that may find it unreasonably costly to comply with the rules or utilize alternative disposal options. These exclusions include such sources as rural IWI units and incinerators in isolated areas of Alaska. These, and the other exclusions, should provide relief for many small entities for which a reasonable disposal alternative is unavailable. For example, a small, rural school may apply for the rural IWI exclusion if they are located more than 50 miles from the boundary of the nearest MSA and can demonstrate that suitable waste disposal alternatives do not exist or are economically infeasible considering their budget. A small school located in an urban area will most likely find that alternative disposal options are readily available, and that they would incur no additional cost or perhaps a slight savings by shutting down their waste combustion unit. The exclusions provided should adequately cover those certain situations where feasible alternatives to incineration do not exist.

As for areas where alternatives to incineration do exist, we have found that the typical cost of incineration is the same as, or greater than, that of using a landfill or sending waste to a larger MWC (see tables 5 and 7 of OSWI Unit Control Options and Costs memorandum, Docket item EPA-HQ-OAR-2003-0156-0012). An additional, more detailed analysis of over 150 OSWI units was conducted to verify that this is the case. The analysis used parameters appropriate for each OSWI unit, including incinerator throughput, distance to nearby landfills, and landfill tipping fees. The analysis confirmed our initial belief that in the vast majority of cases an OSWI facility would incur no additional cost when switching to a landfill. This was also true for small entities. Information about this analysis is in the docket (see Impacts of Other Solid Waste Incinerator Rule on Affected Small Entities, November 2005).

There are several likely reasons that existing OSWI units have continued to operate rather than close and use a less expensive waste disposal method. Some sources may simply be unaware of other viable waste disposal options and their

costs. The attention of other sources may be focused on their day-to-day operations, of which the incineration of waste represents a small piece, both with respect to overall operations and budget. Until an unanticipated event, such as a significant maintenance or repair expense or, in this instance, new regulatory requirements, causes a source to focus on the question of whether to continue to incinerate versus turn to another waste disposal method, the source may not have a reason to consider whether they are using the most economical waste disposal method. Moreover, some sources may not have considered other waste disposal options in lieu of incineration due to concerns regarding the nature of their waste stream (e.g., confidentiality or liability concerns).

As we point out in the preamble to the proposed rules, the OSWI population has been steadily declining over the past several years, and this trend would likely continue in the absence of an OSWI regulation. To ensure that the affected sources were aware of the proposed rules, EPA sent fact sheets to 361 of the existing OSWI units in our inventory (we were unable to determine the mailing address for the remaining 11 units in our inventory). The fact sheets explained the proposed regulations, the anticipated costs and impacts to their facilities, and how they could submit comments. None of these facilities submitted comments on the proposed rules and, in fact, about one-third of these facilities informed us that they no longer own or operate an incineration unit. In addition to the letters to the existing sources, we also identified 125 trade organizations and interest groups that represented potential OSWI owners/operators, such as school system administrators, private school headmasters, correctional facility administrators, religious organizations, associations of city and county governments, etc. and sent them copies of the fact sheet. None of these interest groups submitted comments on the proposed OSWI rules or on the cost or other impacts EPA anticipated due to the rules. We believe that this closure trend in absence of regulation exhibited by existing OSWI units, paired with the lack of comment on our impacts analysis by the soon-to-be regulated community, supports our analysis that it is often more economical to shut down OSWI units and use an alternative waste disposal method, and, therefore, that the final rules do not pose a significant impact to a substantial number of small entities.

However, to further address the commenter's concern, small entity

outreach surveys were sent to eight entities associated with schools (e.g., State-affiliated department of education, office of school facilities). The surveys requested information regarding the use of solid waste incinerators at schools the entities represent or are associated with. All responses, with one exception, indicate that incinerators are not being used by the respondents. The one exception regards an institution that owns/operates pathological waste incinerators, which are excluded from regulation under the subparts.

**V. Impacts of the Final Rules**

*A. What are the impacts for new units?*

As stated in the preamble to the proposed rules, information provided to EPA indicates that no or negative growth has been the trend for OSWI

units for the past several years. The information indicates that this trend is expected to continue even in the absence of a regulation. Furthermore, as our experience with other CAA section 129 regulations has shown, sources will likely respond to the final rules by choosing not to construct new waste incineration units and will utilize alternative waste disposal options rather than incur the costs of compliance. The only potential new units identified by a public commenter were a type of unit that, as described by the commenter, would be an industrial unit rather than an OSWI unit or would qualify for the exclusion for units in isolated areas of Alaska.

Considering this information, EPA does not anticipate the construction of any new OSWI units that would be required to meet the emission limits.

Therefore, EPA expects no impacts of the final NSPS for new units. However, for the sake of demonstrating that emissions reductions would result from the NSPS in the unlikely event that a new unit is constructed, EPA presented the expected emissions reductions for four OSWI model plants in the preamble to the proposed rules (69 FR 71490, December 9, 2004).

Since proposal, the emission limits for CO and HCl have been revised in response to comments, which result in different estimated emissions reductions than those that were shown at proposal. The expected emissions reductions for four OSWI model plants have been recalculated and are shown in table 3 of this preamble. There were no changes to the estimated cost, water, solid waste, and energy impacts on new OSWI units since proposal.

**TABLE 3.—EMISSIONS REDUCTIONS ON A MODEL PLANT BASIS**

Pollutant	Emission reduction for OSWI model plants tons per year (tpy)			
	1 tpd capacity	5 tpd capacity	15 tpd capacity	30 tpd capacity
Cd .....	$3.8 \times 10^{-4}$	$1.9 \times 10^{-3}$	$5.6 \times 10^{-3}$	$1.1 \times 10^{-2}$
CO .....	$1.5 \times 10^{-2}$	$7.5 \times 10^{-2}$	0.22	0.45
Dioxins/furans .....	$3.5 \times 10^{-7}$	$1.7 \times 10^{-6}$	$5.1 \times 10^{-6}$	$1.0 \times 10^{-5}$
HCl .....	0.97	4.7	14	28
Pb .....	$5.4 \times 10^{-3}$	$2.6 \times 10^{-2}$	$7.8 \times 10^{-2}$	0.16
Hg .....	$5.6 \times 10^{-4}$	$2.7 \times 10^{-3}$	$8.2 \times 10^{-3}$	$1.6 \times 10^{-2}$
NO <sub>x</sub> .....	0.28	1.4	4.1	8.2
PM .....	0.26	1.3	3.8	7.7
SO <sub>2</sub> .....	0.69	3.4	10	20
Total .....	2.2	11	33	65

*B. What are the impacts for existing units?*

Information provided to EPA indicates that many existing OSWI units have closed in recent years. In fact, since proposal we have learned that at least one-third of the existing OSWI units in our inventory are no longer operating. As we stated at proposal, this trend is expected to continue even in the absence of a regulation.

Furthermore, as our experience with other CAA section 129 regulations has shown, sources will likely respond to the final OSWI rules by choosing to shut down existing waste incineration units and will utilize alternative waste disposal options rather than incur the costs of compliance.

EPA's objective is not to encourage the use of alternatives or to discourage continued use of VSMWC units or IWI units; rather EPA's objective is to adopt emission guidelines for existing OSWI units that fulfill the requirements of

CAA section 129. In doing so, the primary outcome associated with adoption of these emission guidelines is projected to be an increase in the use of alternative waste disposal and a decrease in the use of VSMWC units and IWI units. Consequently, EPA acknowledges and incorporates this outcome into the analyses of cost, environmental, and energy impacts associated with the emission guidelines, as discussed in the preamble to the proposed rules (69 FR 71490, December 9, 2004).

To account for the existing OSWI unit closure information (123 facilities indicated after proposal that they no longer own or operate an OSWI unit), we have reanalyzed the national emissions, cost, energy, and solid waste impacts presented in the preamble to the proposed rules.

1. What are the changes to the air impacts since proposal?

As discussed earlier, emission limit values for CO and HCl have been revised since proposal due to public comments. EPA then revised emission reduction estimates for each model unit, which are presented in table 3 of this preamble. Furthermore, as discussed above, EPA has learned since proposal that 123 of the existing OSWI units in our inventory at proposal were already closed. Both of these changes affected the estimated national emissions reductions presented in table 8 of the preamble to the proposed rules (69 FR 71491, December 9, 2004). Therefore, these emission reduction estimates were recalculated and are presented in table 4 of this preamble. As shown, total emissions reductions would be over 1,900 tpy if all the remaining existing units in the OSWI inventory complied with the emission guidelines by adding controls.

TABLE 4.—NATIONAL EMISSIONS REDUCTIONS IF ALL EXISTING OSWI UNITS COMPLY WITH THE EMISSION GUIDELINES

Pollutant	Emission reduction (tpy)		
	VSMWC	IWI	Total
Cd	$6.1 \times 10^{-2}$	0.27	0.33
CO	2.4	11	13
Dioxins/furans	$5.6 \times 10^{-5}$	$2.5 \times 10^{-4}$	$3.0 \times 10^{-4}$
HCl	154	684	837
Pb	0.85	3.8	4.6
Hg	$8.9 \times 10^{-2}$	0.40	0.49
NO <sub>x</sub>	45	199	245
PM	42	185	227
SO <sub>2</sub>	110	488	598
Total	353	1,572	1,925

However, as we stated in the preamble to the proposed rules, EPA anticipates that most existing OSWI units will elect to shut down and utilize alternative waste disposal options (e.g., send waste to a landfill or a large or small MWC unit). If the remaining existing OSWI units closed and the waste was sent to a landfill, the anticipated emissions reductions would be over 400 tpy for VSMWC units and over 1,800 tpy for IWI units, which totals over 2,200 tpy for all OSWI units. These reductions occur despite a slight increase in landfill emissions due to the additional waste being landfilled rather than incinerated. By using EPA's Landfill Gas Emission Model (LandGEM), we calculated an increase of 27 tpy of emissions of the regulated pollutants would occur from landfills if all OSWI units closed and the waste was sent to landfills. However, as stated above, this results in net emissions reductions of 2,200 tpy from closure of all OSWI units.

2. What are the changes to the water and solid waste impacts since proposal?

At proposal, EPA estimated that the water impacts of the OSWI rule would be negligible. We have not changed this assessment of water impacts. At proposal, we estimated that the national OSWI population is used to dispose of approximately 85,000 tpy of solid waste. As mentioned before, we anticipate that most, if not all, OSWI units will shut down and the waste will be disposed of in alternative ways. At the time, we concluded that the amount of additional waste that would be sent to landfills due to adoption of the emission guidelines is insignificant. Due to the information we have received on OSWI unit closures since proposal, we have revised our estimate to approximately 60,000 tpy of waste being disposed of in OSWI units. This revision results in even less potential solid waste being diverted to landfills and large or small MWC units

due to promulgation of the emission guidelines. For perspective, over 100 million tpy of municipal waste is disposed of in landfills. Therefore, we continue to maintain that the amount of additional waste that will be sent to landfills is insignificant.

3. What are the changes to the energy impacts since proposal?

At proposal, we concluded that the energy impacts would be negligible since we anticipated that most units would shut down rather than install and operate wet scrubbers. Since proposal, our inventory of existing OSWI units has decreased. Therefore, our assessment of negligible energy impacts at proposal remains unchanged.

4. What are the changes to the cost and economic impacts since proposal?

At proposal, EPA's analysis showed that the national total costs for all existing OSWI units to comply with the emission guidelines would be approximately \$63 million a year. As discussed previously, we have learned that 123 of the existing OSWI units in our inventory at proposal are permanently shut down. The revised national total cost for the remaining existing OSWI units to comply with the emission guidelines is approximately \$42 million.

The remainder of our cost and economic impact discussion in the preamble to the proposed rules (69 FR 71491, December 9, 2004), however, is unaffected by the revised national cost estimate, and remains valid for the final emission guidelines. As previously stated in this preamble, as well as in the preamble to the proposed rules, the cost of landfilling is less than the cost of incineration for most, if not all, OSWI units. Since there is a chance some potentially affected sources will obtain exemptions, we expect most of the affected VSMWC units and IWI units will close and utilize an economical

alternative waste disposal method. Consequently, the net effect of the final emission guidelines will be a net decrease in costs to the universe of affected sources.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether the regulatory action is "significant" and, therefore, subject to review by OMB and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

- (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities;
- (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or
- (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, OMB has notified EPA that it considers the final rules a "significant regulatory action" within the meaning of the Executive Order. Consequently, the final rules were submitted to OMB for review. Changes made in response to OMB suggestions or recommendations are documented in the public record.

*B. Paperwork Reduction Act*

The information collection requirements in the final rules have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The Information Collection Request (ICR) documents have been prepared by EPA (ICR No. 2163.02 for subpart EEEE and 2164.02 for subpart FFFF), and copies may be obtained from Susan Auby by mail at the Collection Strategies Division, EPA (2822), 1200 Pennsylvania Avenue, NW., Washington, DC 20460, by e-mail at [auby.susan@epa.gov](mailto:auby.susan@epa.gov), or by calling (202) 566-1672. A copy may also be downloaded off the Internet at <http://www.epa.gov/icr>. The information collection requirements are not enforceable until OMB approves them.

The final rules contain monitoring, reporting, and recordkeeping requirements. The information will be used by EPA to identify any new, modified, or reconstructed incineration units subject to the NSPS and to ensure that any new incineration units undergo a siting analysis and comply with the emission limits and other requirements. Similarly, the information specified in the emission guidelines will be used by States or EPA to identify existing units subject to the State or Federal plans that implement the emission guidelines, and to ensure that these units comply with their emission limits and other requirements. Records and reports are necessary to enable EPA or States to identify waste incineration units that may not be in compliance with the requirements. Based on reported information, EPA will decide which

units and what records or processes should be inspected.

These recordkeeping and reporting requirements are specifically authorized by CAA section 114 (42 U.S.C. 7414). All information submitted to EPA for which a claim of confidentiality is made will be safeguarded according to EPA policies in 40 CFR part 2, subpart B, Confidentiality of Business Information.

EPA estimates that there is no burden for the first 3 years after promulgation of the NSPS for industry and the implementing agency. This is because EPA expects no new OSWI units to be constructed over this 3-year period.

The estimated average annual burden for the first 3 years after promulgation of the emission guidelines for industry and the implementing agency is outlined below.

Affected entity	Average annual hours	Labor costs	Capital costs	O&M costs	Total annual costs
Industry .....	3,818	\$175,408	\$0	\$0	\$174,703
Implementing agency .....	383	17,611	0	0	17,611

EPA expects the emission guidelines to affect a maximum of 248 OSWI units over the first 3 years. There are no capital, start-up, or operation and maintenance costs for existing units during the first 3 years, because compliance with the emission guidelines is not required until 5 years after promulgation of the emission guidelines (or 3 years after the effective date of approval of a State or Federal plan to implement the guidelines). Costs in the first 3 years include time to review the guidelines and the State or Federal plan. The implementing agency will not incur any capital or start-up costs.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to

respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9 and 48 CFR chapter 15. When the ICRs are approved by OMB, EPA will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control numbers for the approved information collection requirements contained in the final rules.

*C. Regulatory Flexibility Act*

The Regulatory Flexibility Act generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions. EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rules.

For purposes of assessing the impacts of the final rules on small entities, small entity is defined as follows:

1. A small business that is an ultimate parent entity in the regulated industry that has a gross annual revenue less than \$6.0 million (this varies by industry category, ranging up to \$10.5 million for North American Industrial

Classification System (NAICS) code 562213 (VSMWC)), based on Small Business Administration's size standards;

2. A small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; or

3. A small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field.

After considering the economic impacts of the final rules on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. The economic impacts on small entities will not be significant because the cost of the final rules is expected to range from negligible to actual cost savings. EPA expects that the majority of these entities may realize a cost savings under the likely response to the final rules (closure and using alternative waste disposal method).

Alternative waste disposal methods, such as landfilling, are available for OSWI units. Our analysis using model plants and a supplemental analysis using site specific data both support the idea that the annual cost to landfill waste is typically less than the annual cost of using an OSWI unit for waste disposal. Thus, the likely response to the final rules will be for small entities that own and operate OSWI units to close the units and use an alternative

waste disposal method. More detailed information about these analyses is available in the docket (see Revised Economic Analysis for Other Solid Waste Incineration (OSWI) Units, November 2005; and Impacts of Other Solid Waste Incinerator Rule on Affected Small Entities, November 2005).

The Small Business Administration's Office of Advocacy (SBA) expressed concerns that EPA's certification that the proposed standards and guidelines would not have a significant economic impact on a substantial number of small entities is not based on an adequate analysis of IWI units operated by small entities. In response to SBA's public comment, we conducted further detailed analyses (as summarized in this preamble and available in the docket) and sent small entity outreach surveys requesting information regarding the use of solid waste incinerators at schools to eight entities (identified by SBA) associated with schools. All responses from the small entity outreach survey, with one exception, indicate that incinerators are not being used by the respondents. The one exception regards an institution that owns/operates pathological waste incinerators, which are excluded from regulation under the standards and guidelines.

Although the final rules will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of the rules on small entities. The final rules provide various exclusions for some sources that may find it unreasonably costly to comply with the rules or utilize alternative disposal options. These exclusions should provide relief for many small entities for which a reasonable disposal alternative is unavailable.

In addition, to ensure that affected sources were aware of the proposed rules, EPA sent fact sheets to 361 existing OSWI units in our inventory and an additional 125 fact sheets to trade organizations and interest groups that represented potential OSWI unit owners/operators. The fact sheets explained the proposed regulations, the anticipated costs and impacts to their facilities, and how they could submit comments. None of the facilities or interest groups submitted comments on the proposed OSWI rules or on the cost or other impacts EPA anticipated due to the rulemaking and, in fact, about one-third of the 361 facilities informed us that they no longer own or operate an incineration unit.

#### *D. Unfunded Mandates Reform Act*

Title II of the Unfunded Mandates Reform Act (UMRA) of 1995, Public Law 104-4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and Tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and Tribal governments, in the aggregate, or by the private sector, of \$100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if EPA publishes with the final rule an explanation why that alternative was not adopted.

Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, EPA must develop a small government agency plan under section 203 of the UMRA. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA's regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

EPA has determined that the final rules do not contain a Federal mandate that may result in expenditures of \$100 million or more for State, local, and Tribal governments, in the aggregate, or the private sector in any 1 year. The total annual cost, in any 1 year, for all OSWI units to comply with today's final rules is estimated at \$42 million. However, as previously stated in this preamble, most OSWI units are expected to close and utilize an economical alternative waste disposal method rather than complying with the final rules. Therefore, the cost impacts are expected to be negligible. Thus, the final rules are not subject to the

requirements of section 202 and 205 of the UMRA. In addition, EPA has determined that the final rules contain no regulatory requirements that might significantly or uniquely affect small governments because the burden is small and the regulations do not unfairly apply to small governments. Therefore, the final rules are not subject to the requirements of section 203 of the UMRA.

#### *E. Executive Order 13132: Federalism*

Executive Order 13132 (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications."

The final rules do not have federalism implications. They will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The final rules will not impose substantial direct compliance costs on State or local governments, and will not preempt State law. Thus, Executive Order 13132 does not apply to the final rules.

#### *F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*

Executive Order 13175, (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by Tribal officials in the development of regulatory policies that have Tribal implications." "Policies that have Tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

The final rules do not have Tribal implications, as specified in Executive Order 13175. They will not have substantial direct effects on Tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to the final rules.

*G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks*

Executive Order 13045 (62 FR 19885, April 23, 1997), applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives EPA considered.

EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5-501 of the Executive Order has the potential to influence the regulation. The final rules are not subject to Executive Order 13045 because they are based on technology performance and not on health and safety risks.

*H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution or Use*

Executive Order 13211 (66 FR 28355, May 22, 2001) requires agencies to prepare and submit to the Administrator of the Office of Information and Regulatory Affairs, OMB, a Statement of Energy Effects for certain actions identified as "significant energy actions." Section 4(b) of Executive Order 13211 defines "significant energy actions" as "any action by an agency (normally published in the **Federal Register**) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of proposed rulemaking, and notices of proposed rulemaking: (1)(i) That is a significant regulatory action under Executive Order 12866 or any successor order, and (ii) is likely to have a significant adverse on the supply, distribution, or use of energy; or (2) that is designated by the Administrator of the Office of Information and Regulatory Affairs as a significant energy action \* \* \*." Although the final rules are considered to be a significant regulatory action under Executive Order 12866, they are not a "significant energy action" because they are not likely to have a significant adverse effect on the supply, distribution, or use of energy. The basis for the determination follows.

EPA expects that few, if any, OSWI facilities will elect to continue to

operate OSWI units, and that most facilities will respond to the final rules by closing existing OSWI units and using alternative waste disposal techniques. This response is likely because the annual cost of landfilling, an alternative waste disposal method, is typically less expensive than the annual cost of using an OSWI unit for waste disposal. In the few cases where an OSWI facility elects to comply with the final rules by installing a wet scrubber, the operation of the scrubber will result in a small increase in power consumption. However, due to the small size of these units (and the likelihood that very few of them will continue to operate), the energy impacts will be negligible.

Given the negligible change in energy consumption resulting from the final rules, EPA does not expect any price increase for any energy type. The cost of energy distribution should not be affected by the final rules at all since the final rules do not affect energy distribution facilities. EPA also expects that there would be no impact on the import of foreign energy supplies, and EPA does not expect other adverse outcomes to occur with regards to energy supplies.

Therefore, EPA concludes that the final rules are not likely to have a significant adverse effect on the supply, distribution, or use of energy.

*I. National Technology Transfer Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Pub. L. No. 104-113; 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The final rules involve technical standards. EPA cites the following standards in the final rules: EPA Methods 1, 2, 3A, 3B, 4, 5, 6 or 6C, 7 or 7A, 7C, 7D, or 7E, 9, 10, 10A or 10B, 23, 26A, and 29 of 40 CFR part 60, appendix A.

Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards in

addition to these EPA methods. No applicable voluntary consensus standards were identified for EPA Methods 7D and 9. The search and review results have been documented and are in the docket for the final rules. One voluntary consensus standard was identified as an acceptable alternative to EPA test methods for the purposes of the final rules. The voluntary consensus standard ASME PTC 19-10-1981-Part 10, "Flue and Exhaust Gas Analyses," is cited in the final rules for its manual methods for measuring the nitrogen oxide, oxygen, and sulfur dioxide content of exhaust gas. These parts of ASME PTC 19-10-1981-Part 10 are acceptable alternatives to Methods 3B, 6, 7, and 7C.

The search for emissions measurement procedures identified 26 voluntary consensus standards potentially applicable to the final rules. EPA determined that 24 of the 26 candidate standards identified for measuring emissions of Cd, CO, dioxins/furans, HCl, Hg, Pb, PM, NO<sub>x</sub>, and SO<sub>2</sub> subject to the emission limits were impractical alternatives to EPA test methods for the purposes of the final rules. Therefore, EPA does not intend to adopt the standards for this purpose. (See Docket ID No. EPA-HQ-OAR-2003-0156 for further information on the methods.) Two of the 26 voluntary consensus standards identified in this search were not available at the time the review was conducted because they are under development by a voluntary consensus body: ASME/BSR MFC 13M, "Flow Measurement by Velocity Traverse," for EPA Method 2 (and possibly 1); and ASME/BSR MFC 12M, "Flow in Closed Conduits Using Multiport Averaging Pitot Primary Flowmeters," for EPA Method 2.

Tables 1 and 3 to subpart EEEE of 40 CFR part 60 and tables 2 and 4 to subpart FFFF of 40 CFR part 60 list the EPA testing methods included in the final rules. Under 40 CFR 60.8(b) and 60.13(i) of subpart A (General Provisions), a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any of the EPA testing methods, performance specifications, or procedures.

*J. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General

of the United States. EPA will submit a report containing the final rules and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the final rules in the **Federal Register**. The final rules are not "major rules" as defined by 5 U.S.C. 804(2). The final NSPS will be effective on June 16, 2006. The final emission guidelines are effective on February 14, 2006.

#### List of Subjects in 40 CFR Part 60

Environmental protection, Administrative practice and procedure, Air pollution control, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: November 30, 2005.

**Stephen L. Johnson,**  
*Administrator.*

■ For the reasons stated in the preamble, title 40, chapter I, of the Code of Federal Regulations is amended as follows:

#### PART 60—[AMENDED]

■ 1. The authority citation for part 60 continues to read as follows:

**Authority:** 42 U.S.C. 7401, et seq.

#### Subpart A—[Amended]

■ 2. Section 60.17 is amended by revising paragraph (h) introductory text and adding paragraph (h)(4) to read as follows:

#### § 60.17 Incorporation by Reference.

\* \* \* \* \*

(h) The following material is available for purchase from the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016–5990.

\* \* \* \* \*

(4) ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], IBR approved for Tables 1 and 3 of subpart EEEE, and Tables 2 and 4 of subpart FFFF of this part.

\* \* \* \* \*

■ 3. Part 60 is amended by adding subpart EEEE to read as follows:

**Subpart EEEE—Standards of Performance for Other Solid Waste Incineration Units for Which Construction Is Commenced After December 9, 2004, or for Which Modification or Reconstruction Is Commenced on or After June 16, 2006.**

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Table 4 to Subpart EEEE of Part 60—  
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### Subpart EEEE—Standards of Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006.

#### Introduction

##### § 60.2880 What does this subpart do?

This subpart establishes new source performance standards for other solid waste incineration (OSWI) units. Other solid waste incineration units are very small municipal waste combustion units and institutional waste incineration units.

##### § 60.2881 When does this subpart become effective?

This subpart takes effect June 16, 2006. Some of the requirements in this subpart apply to planning the incineration unit and must be completed even before construction is initiated on the unit (i.e., the preconstruction requirements in §§ 60.2894 and 60.2895). Other requirements such as the emission limitations and operating limits apply when the unit begins operation.

#### Applicability

##### § 60.2885 Does this subpart apply to my incineration unit?

Yes, if your incineration unit meets all the requirements specified in

paragraphs (a) through (c) of this section.

(a) Your incineration unit is a new incineration unit as defined in § 60.2886.

(b) Your incineration unit is an OSWI unit as defined in § 60.2977 or an air curtain incinerator subject to this subpart as described in § 60.2888(b). Other solid waste incineration units are very small municipal waste combustion units and institutional waste incineration units as defined in § 60.2977.

(c) Your incineration unit is not excluded under § 60.2887.

##### § 60.2886 What is a new incineration unit?

(a) A new incineration unit is an incineration unit subject to this subpart that meets either of the two criteria specified in paragraphs (a)(1) or (2) of this section.

(1) Commenced construction after December 9, 2004.

(2) Commenced reconstruction or modification on or after June 16, 2006.

(b) This subpart does not affect your incineration unit if you make physical or operational changes to your incineration unit primarily to comply with the emission guidelines in subpart FFFF of this part. Such changes do not qualify as reconstruction or modification under this subpart.

##### § 60.2887 What combustion units are excluded from this subpart?

This subpart excludes the types of units described in paragraphs (a) through (q) of this section, as long as you meet the requirements of this section.

(a) *Cement kilns.* Your unit is excluded if it is regulated under subpart LLL of part 63 of this chapter (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry).

(b) *Co-fired combustors.* Your unit, that would otherwise be considered a very small municipal waste combustion unit, is excluded if it meets the five requirements specified in paragraphs (b)(1) through (5) of this section.

(1) The unit has a Federally enforceable permit limiting the combustion of municipal solid waste to 30 percent of the total fuel input by weight.

(2) You notify the Administrator that the unit qualifies for the exclusion.

(3) You provide the Administrator with a copy of the Federally enforceable permit.

(4) You record the weights, each calendar quarter, of municipal solid waste and of all other fuels combusted.

(5) You keep each report for 5 years. These records must be kept on site for

at least 2 years. You may keep the records off site for the remaining 3 years.

(c) *Cogeneration facilities.* Your unit is excluded if it meets the three requirements specified in paragraphs (c)(1) through (3) of this section.

(1) The unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)).

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

(3) You notify the Administrator that the unit meets all of these criteria.

(d) *Commercial and industrial solid waste incineration units.* Your unit is excluded if it is regulated under subparts CCCC or DDDD of this part and is required to meet the emission limitations established in those subparts.

(e) *Hazardous waste combustion units.* Your unit is excluded if it meets either of the two criteria specified in paragraph (e)(1) or (2) of this section.

(1) You are required to get a permit for your unit under section 3005 of the Solid Waste Disposal Act.

(2) Your unit is regulated under 40 CFR part 63, subpart EEE (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors).

(f) *Hospital/medical/infectious waste incinerators.* Your unit is excluded if it is regulated under subparts Ce or Ec of this part (New Source Performance Standards and Emission Guidelines for Hospital/Medical/Infectious Waste Incinerators).

(g) *Incinerators and air curtain incinerators in isolated areas of Alaska.* Your incineration unit is excluded if it is used at a solid waste disposal site in Alaska that is classified as a Class II or Class III municipal solid waste landfill, as defined in § 60.2977.

(h) *Rural institutional waste incinerators.* Your incineration unit is excluded if it is an institutional waste incineration unit, as defined in § 60.2977, and the application for exclusion described in paragraphs (h)(1) and (2) of this section has been approved by the Administrator.

(1) Prior to initial startup, an application and supporting documentation demonstrating that the institutional waste incineration unit meets the two requirements specified in paragraphs (h)(1)(i) and (ii) of this section must be submitted to and approved by the Administrator.

(i) The unit is located more than 50 miles from the boundary of the nearest Metropolitan Statistical Area,

(ii) Alternative disposal options are not available or are economically infeasible.

(2) The application described in paragraph (h)(1) of this section must be revised and resubmitted to the Administrator for approval every 5 years following the initial approval of the exclusion for your unit.

(3) If you re-applied for an exclusion pursuant to paragraph (h)(2) of this section and were denied exclusion by the Administrator, you have 3 years from the expiration date of the current exclusion to comply with the emission limits and all other applicable requirements of this subpart.

(i) *Institutional boilers and process heaters.* Your unit is excluded if it is regulated under 40 CFR part 63, subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters).

(j) *Laboratory Analysis Units.* Your unit is excluded if it burns samples of materials only for the purpose of chemical or physical analysis.

(k) *Materials recovery units.* Your unit is excluded if it combusts waste for the primary purpose of recovering metals. Examples include primary and secondary smelters.

(l) *Pathological waste incineration units.* Your institutional waste incineration unit or very small municipal waste combustion unit is excluded from this subpart if it burns 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste as defined in § 60.2977 and you notify the Administrator that the unit meets these criteria.

(m) *Small or large municipal waste combustion units.* Your unit is excluded if it is regulated under subparts AAAA, BBBB, Ea, Eb, or Cb, of this part and is required to meet the emission limitations established in those subparts.

(n) *Small power production facilities.* Your unit is excluded if it meets the three requirements specified in paragraphs (n)(1) through (3) of this section.

(1) The unit qualifies as a small power-production facility under section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)).

(2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity.

(3) You notify the Administrator that the unit meets all of these criteria.

(o) *Temporary-use incinerators and air curtain incinerators used in disaster recovery.* Your incineration unit is excluded 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 and you comply with the requirements in § 60.2969.

(p) *Units that combust contraband or prohibited goods.* Your incineration unit is excluded if the unit is owned or operated by a government agency such as police, customs, agricultural inspection, or a similar agency to destroy only illegal or prohibited goods such as illegal drugs, or agricultural food products that can not be transported into the country or across State lines to prevent biocontamination. The exclusion does not apply to items either confiscated or incinerated by private, industrial, or commercial entities.

(q) *Incinerators used for national security.* Your incineration unit is excluded if it meets the requirements specified in either (q)(1) or (2) of this section.

(1) The incineration unit is used solely during military training field exercises to destroy national security materials integral to the field exercises.

(2) The incineration unit is used solely to incinerate national security materials, its use is necessary to safeguard national security, you follow the exclusion request requirements in paragraphs (q)(2)(i) and (ii) of this section, and the Administrator has approved your request for exclusion.

(i) The request for exclusion and supporting documentation must demonstrate both that the incineration unit is used solely to destroy national security materials and that a reliable alternative to incineration that ensures acceptable destruction of national security materials is unavailable, on either a permanent or temporary basis.

(ii) The request for exclusion must be submitted to and approved by the Administrator prior to initial startup.

**§ 60.2888 Are air curtain incinerators regulated under this subpart?**

(a) Air curtain incinerators that burn less than 35 tons per day of municipal solid waste or air curtain incinerators located at institutional facilities burning any amount of institutional waste generated at that facility are subject to all requirements of this subpart,

including the emission limitations specified in Table 1 of this subpart.

(b) Air curtain incinerators that burn only less than 35 tons per day of the materials listed in paragraphs (b)(1) through (4) of this section collected from the general public and from residential, commercial, institutional, and industrial sources; or, air curtain incinerators located at institutional facilities that burn only the materials listed in paragraphs (b)(1) through (4) of this section generated at that facility, are required to meet only the requirements in §§ 60.2970 through 60.2974 and are exempt from all other requirements of this subpart.

(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.

**§ 60.2889 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If EPA has delegated authority to your State, local, or tribal agency, then that agency (as well as EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency, the authorities contained in paragraphs (b)(1) through (6) of this section are retained by EPA and are not transferred to the State, local, or tribal agency.

(1) Approval of alternatives to the emission limitations in Table 1 of this subpart and operating limits established under § 60.2916 and Table 2 of this subpart.

(2) Approval of petitions for specific operating limits in § 60.2917.

(3) Approval of major alternatives to test methods.

(4) Approval of major alternatives to monitoring.

(5) Approval of major alternatives to recordkeeping and reporting.

(6) The status report requirements in § 60.2911(c)(2).

**§ 60.2890 How are these new source performance standards structured?**

These new source performance standards contain nine major components, as follows:

(a) Preconstruction siting analysis.

(b) Waste management plan.

(c) Operator training and qualification.

(d) Emission limitations and operating limits.

(e) Performance testing.

(f) Initial compliance requirements.

(g) Continuous compliance requirements.

(h) Monitoring.

(i) Recordkeeping and reporting.

**§ 60.2891 Do all components of these new source performance standards apply at the same time?**

No, you must meet the preconstruction siting analysis and waste management plan requirements before you commence construction, reconstruction, or modification of the OSWI unit. The operator training and qualification, emission limitations, operating limits, performance testing and compliance, monitoring, and most recordkeeping and reporting requirements are met after the OSWI unit begins operation.

**Preconstruction Siting Analysis**

**§ 60.2894 Who must prepare a siting analysis?**

(a) You must prepare a siting analysis if you commence construction, reconstruction, or modification of an OSWI unit after June 16, 2006.

(b) If you commence construction, reconstruction, or modification of an OSWI unit after December 9, 2004, but before June 16, 2006, you are not required to prepare the siting analysis specified in this subpart.

**§ 60.2895 What is a siting analysis?**

(a) The siting analysis must consider air pollution control alternatives that minimize, on a site-specific basis, to the maximum extent practicable, potential risks to public health or the environment. In considering such alternatives, you may consider costs, energy impacts, nonair environmental impacts, or any other factors related to the practicability of the alternatives.

(b) Analyses of your OSWI unit's impacts that are prepared to comply with State, local, or other Federal regulatory requirements may be used to satisfy the requirements of this section, provided they include the consideration of air pollution control alternatives specified in paragraph (a) of this section.

(c) You must complete and submit the siting requirements of this section as required under § 60.2952(c) prior to commencing construction, reconstruction, or modification.

**Waste Management Plan**

**§ 60.2899 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.

**§ 60.2900 When must I submit my waste management plan?**

You must submit a waste management plan prior to commencing construction, reconstruction, or modification.

**§ 60.2901 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.

**Operator Training and Qualification**

**§ 60.2905 What are the operator training and qualification requirements?**

(a) No 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 § 60.2911.

(b) Operator training and qualification must be obtained through a State-approved program or by completing the requirements included in paragraph (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 (c)(1) through (3) of this section.

(1) Training on the thirteen subjects listed in paragraphs (c)(1)(i) through (xiii) of this section.

(i) Environmental concerns, including types of emissions.

(ii) Basic combustion principles, including products of combustion.

(iii) Operation of the specific type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures.

(iv) Combustion controls and monitoring.

(v) Operation of air pollution control equipment and factors affecting performance (if applicable).

(vi) Inspection and maintenance of the incinerator and air pollution control devices.

(vii) Methods to monitor pollutants (including monitoring of incinerator and control device operating parameters) and monitoring equipment calibration procedures, where applicable.

(viii) Actions to correct malfunctions or conditions that may lead to malfunction.

(ix) Bottom and fly ash characteristics and handling procedures.

(x) Applicable Federal, State, and local regulations, including Occupational Safety and Health Administration workplace standards.

(xi) Pollution prevention.

(xii) Waste management practices.

(xiii) 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.

**§ 60.2906 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 (a) through (c) of this section.

(a) Six months after your OSWI unit startup.

(b) December 18, 2006.

(c) The date before an employee assumes responsibility for operating the OSWI unit or assumes responsibility for supervising the operation of the OSWI unit.

**§ 60.2907 How do I obtain my operator qualification?**

(a) You must obtain operator qualification by completing a training course that satisfies the criteria under § 60.2905(c).

(b) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under § 60.2905(c)(2).

**§ 60.2908 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 (a) through (e) of this section.

- (a) Update of regulations.
- (b) Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling.
- (c) Inspection and maintenance.
- (d) Responses to malfunctions or conditions that may lead to malfunction.
- (e) Discussion of operating problems encountered by attendees.

**§ 60.2909 How do I renew my lapsed operator qualification?**

You must renew a lapsed operator qualification by one of the two methods specified in paragraphs (a) and (b) of this section.

- (a) For a lapse of less than 3 years, you must complete a standard annual refresher course described in § 60.2908.
- (b) For a lapse of 3 years or more, you must repeat the initial qualification requirements in § 60.2907(a).

**§ 60.2910 What site-specific documentation is required?**

(a) Documentation must be available at the facility and readily accessible for all OSWI unit operators that addresses the nine topics described in paragraphs (a)(1) through (9) of this section. You must maintain this information and the training records required by paragraph (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 subpart.
- (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 subpart.
- (6) Monitoring procedures for demonstrating compliance with the operating limits established under this subpart.
- (7) Reporting and recordkeeping procedures.
- (8) The waste management plan required under §§ 60.2899 through 60.2901.
- (9) Procedures for handling ash.
- (b) You must establish a program for reviewing the information listed in paragraph (a) of this section with each incinerator operator.

(1) The initial review of the information listed in paragraph (a) of this section must be conducted by December 18, 2006 or prior to an employee's assumption of responsibilities for operation of the OSWI unit, whichever date is later.

(2) Subsequent annual reviews of the information listed in paragraph (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 (c)(1) through (3) of this section.

(1) Records showing the names of OSWI unit operators who have completed review of the information in paragraph (a) of this section as required by paragraph (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 § 60.2905, met the criteria for qualification under § 60.2907, and maintained or renewed their qualification under § 60.2908 or § 60.2909. 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.

**§ 60.2911 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 (a) through (c) of this section, depending on the length of time that a qualified operator is not accessible.

(a) When all qualified operators are not accessible for 12 hours or less, the 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 § 60.2910(a) within the past 12 months. You do not need to notify the Administrator or include this as a deviation in your annual report.

(b) 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 § 60.2910(a) 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 § 60.2956.

(c) When all qualified operators are not accessible for 2 weeks or more, you

must take the two actions that are described in paragraphs (c)(1) and (2) of this section.

(1) Notify the Administrator of this deviation in writing within 10 days. 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.

(2) Submit a status report to EPA 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 EPA to continue operation of the OSWI unit. You must submit the first status report 4 weeks after you notify the Administrator of the deviation under paragraph (c)(1) of this section. If EPA 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 paragraphs (c)(2)(i) and (ii) of this section.

(i) A qualified operator is accessible as required under § 60.2905(a).

(ii) You notify EPA that a qualified operator is accessible and that you are resuming operation.

**Emission Limitations and Operating Limits**

**§ 60.2915 What emission limitations must I meet and by when?**

You must meet the emission limitations specified in Table 1 of this subpart 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.

**§ 60.2916 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 2 of this subpart) as described in paragraphs (a)(1) through (4) of this section during the initial performance test.

(1) Maximum charge rate, calculated using one of the two different procedures in paragraphs (a)(1)(i) or (ii) of this section, as appropriate.

(i) 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.

(ii) 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 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.

**§ 60.2917 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 § 60.2915, you must petition 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 EPA. Your petition must include the five items listed in paragraphs (a) through (e) of this section.

(a) Identification of the specific parameters you propose to use as operating limits.

(b) 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.

(c) 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.

(d) 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.

(e) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

**§ 60.2918 What happens during periods of startup, shutdown, and malfunction?**

The emission limitations and operating limits apply at all times except during OSWI unit startups, shutdowns, or malfunctions.

**Performance Testing**

**§ 60.2922 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 1 of this subpart.

(c) All performance tests must be conducted using the minimum run duration specified in Table 1 of this subpart.

(d) Method 1 of appendix A of this part must be used to select the sampling location and number of traverse points.

(e) Method 3A or 3B of appendix A of this part must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B of appendix A of this part 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 “60.2975.

(g) Method 26A of appendix A of this part must be used for hydrogen chloride concentration analysis, with the additional requirements specified in paragraphs (g)(1) through (3) of this section.

(1) The probe and filter must be conditioned prior to sampling using the procedure described in paragraphs (g)(1)(i) through (iii) of this section.

(i) 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 one-hour period. Follow the sampling procedures outlined in section 8.1.5 of Method 26A of appendix A of this part. For the conditioning run, water can be used as the impinger solution.

(ii) 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.

(iii) 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 °C (248 °F) and 134 °C (273 °F) must be maintained.

(3) If water droplets are present in the sample gas stream, the requirements specified in paragraphs (g)(3)(i) and (ii) of this section must be met.

(i) The cyclone described in section 6.1.4 of Method 26A of appendix A of this part must be used.

(ii) The post-test moisture removal procedure described in section 8.1.6 of Method 26A of appendix A of this part must be used.

**§ 60.2923 How are the performance test data used?**

You use results of performance tests to demonstrate compliance with the emission limitations in Table 1 of this subpart.

**Initial Compliance Requirements**

**§ 60.2927 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 § 60.8, to determine compliance with the emission limitations in Table 1 of this subpart and to establish operating limits using the procedure in § 60.2916 or § 60.2917. The initial performance test must be conducted using the test methods listed in Table 1 of this subpart and the procedures in § 60.2922.

**§ 60.2928 By what date must I conduct the initial performance test?**

The initial performance test must be conducted within 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.

**Continuous Compliance Requirements**

**§ 60.2932 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 1 of this subpart for each OSWI unit to determine compliance with the

emission limitations. The annual performance test must be conducted using the test methods listed in Table 1 of this subpart and the procedures in 60.2922.

(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 1 of this subpart constitutes a deviation from the emission limitation.

(c) You must continuously monitor the operating parameters specified in § 60.2916 or established under § 60.2917. Three-hour rolling average values are used to determine compliance with the operating limits unless a different averaging period is established under § 60.2917. A 3-hour rolling average value (unless a different averaging period is established under § 60.2917) 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.

**§ 60.2933 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.

**§ 60.2934 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 OSWI 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.

**§ 60.2935 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 Administrator may request a repeat performance test at any time.

**Monitoring**

**§ 60.2939 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 § 60.13.

**§ 60.2940 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 60 days after your OSWI unit reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup.

(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 EPA Method 10, 10A, or 10B of appendix A of this part. Use EPA Method 3 or 3A to measure oxygen. Collect the data during each initial and annual evaluation of your continuous emission monitoring systems following the applicable performance specifications in appendix B of this part. Table 3 of this subpart 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 appendix F of this part for each continuous emission monitoring system. The procedures include daily calibration drift and quarterly accuracy determinations.

**§ 60.2941 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 appendix F of this part.

**§ 60.2942 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. Section 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 paragraphs (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 paragraphs (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 3 of this subpart. 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.

**§ 60.2943 How do I convert my 1-hour arithmetic averages into the appropriate averaging times and units?**

(a) Use Equation 1 in § 60.2975 to calculate emissions at 7 percent oxygen.

(b) Use Equation 2 in § 60.2975 to calculate the 12-hour rolling averages for concentrations of carbon monoxide.

**§ 60.2944 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 § 60.2915, 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 2 of this subpart. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in Table 2 of this subpart 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 § 60.2915, 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 § 60.2917.

**§ 60.2945 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 OSWI 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 paragraphs (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 subpart, including data averages and calculations. You must use all the data collected during all other periods in

assessing compliance with the operating limits.

**Recordkeeping and Reporting**

**§ 60.2949 What records must I keep?**

You must maintain the 15 items (as applicable) as specified in paragraphs (a) through (o) of this section for a period of at least 5 years.

(a) Calendar date of each record.

(b) Records of the data described in paragraphs (b)(1) through (8) of this section.

(1) The OSWI unit charge dates, times, weights, and hourly charge rates.

(2) Liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable.

(3) 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.

(4) Liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable.

(5) For OSWI units that establish operating limits for controls other than wet scrubbers under § 60.2917, you must maintain data collected for all operating parameters used to determine compliance with the operating limits.

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

(7) All 12-hour rolling average values of carbon monoxide emissions and all 3-hour rolling average values of continuously monitored operating parameters.

(8) Records of the dates, times, and durations of any bypass of the control device.

(c) 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.

(d) Identification of calendar dates, times, and durations of malfunctions, and a description of the malfunction and the corrective action taken.

(e) Identification of calendar dates and times for which monitoring data show a deviation from the carbon monoxide emissions limit in Table 1 of this subpart or a deviation from the operating limits in Table 2 of this subpart or a deviation from other operating limits established under § 60.2917 with a description of the

deviations, reasons for such deviations, and a description of corrective actions taken.

(f) Calendar dates when continuous monitoring systems did not collect the minimum amount of data required under §§ 60.2942 and 60.2945.

(g) For carbon monoxide continuous emissions monitoring systems, document the results of your daily drift tests and quarterly accuracy determinations according to Procedure 1 of appendix F of this part.

(h) Records of the calibration of any monitoring devices required under § 60.2944.

(i) 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.

(j) All documentation produced as a result of the siting requirements of §§ 60.2894 and 60.2895.

(k) Records showing the names of OSWI unit operators who have completed review of the information in § 60.2910(a) as required by § 60.2910(b), including the date of the initial review and all subsequent annual reviews.

(l) Records showing the names of the OSWI unit operators who have completed the operator training requirements under § 60.2905, met the criteria for qualification under § 60.2907, and maintained or renewed their qualification under § 60.2908 or § 60.2909. 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.

(m) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

(n) Equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment.

(o) The information listed in § 60.2910(a).

**§ 60.2950 Where and in what format must I keep my records?**

(a) 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) 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 Administrator.

**§ 60.2951 What reports must I submit?**

See Table 4 of this subpart for a summary of the reporting requirements.

**§ 60.2952 What must I submit prior to commencing construction?**

You must submit a notification prior to commencing construction that includes the five items listed in paragraphs (a) through (e) of this section.

(a) A statement of intent to construct.

(b) The anticipated date of commencement of construction.

(c) All documentation produced as a result of the siting requirements of § 60.2895.

(d) The waste management plan as specified in §§ 60.2899 through 60.2901.

(e) Anticipated date of initial startup.

**§ 60.2953 What information must I submit prior to initial startup?**

You must submit the information specified in paragraphs (a) through (e) of this section prior to initial startup.

(a) The type(s) of waste to be burned.

(b) The maximum design waste burning capacity.

(c) The anticipated maximum charge rate.

(d) If applicable, the petition for site-specific operating limits under § 60.2917.

(e) The anticipated date of initial startup.

**§ 60.2954 What information must I submit following my initial performance test?**

You must submit the information specified in paragraphs (a) and (b) of this section no later than 60 days following the initial performance test. All reports must be signed by the facilities manager.

(a) The complete test report for the initial performance test results obtained under § 60.2927, as applicable.

(b) The values for the site-specific operating limits established in § 60.2916 or § 60.2917.

**§ 60.2955 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 § 60.2954. You must submit subsequent reports no more than 12 months following the previous report.

**§ 60.2956 What information must I include in my annual report?**

The annual report required under § 60.2955 must include the ten items listed in paragraphs (a) through (j) 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 §§ 60.2957 through 60.2959.

(a) Company name and address.

(b) Statement by the owner or operator, with their name, title, and signature, certifying the truth, accuracy, and completeness of the report. Such certifications must also comply with the requirements of 40 CFR 70.5(d) or 40 CFR 71.5(d).

(c) Date of report and beginning and ending dates of the reporting period.

(d) The values for the operating limits established pursuant to § 60.2916 or § 60.2917.

(e) 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.

(f) 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.

(g) Information recorded under § 60.2949(b)(6) and (c) through (e) for the calendar year being reported.

(h) If a performance test was conducted during the reporting period, the results of that test.

(i) If you met the requirements of § 60.2934(a) or (b), and did not conduct a performance test during the reporting period, you must state that you met the requirements of § 60.2934(a) or (b), and, therefore, you were not required to conduct a performance test during the reporting period.

(j) Documentation of periods when all qualified OSWI unit operators were unavailable for more than 12 hours, but less than 2 weeks.

**§ 60.2957 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 subpart, 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).

**§ 60.2958 What must I include in the deviation report?**

In each report required under § 60.2957, for any pollutant or operating parameter that deviated from the emission limitations or operating limits specified in this subpart, include the seven items described in paragraphs (a) through (g) of this section.

(a) The calendar dates and times your unit deviated from the emission limitations or operating limit requirements.

(b) The averaged and recorded data for those dates.

(c) Durations and causes of each deviation from the emission limitations or operating limits and your corrective actions.

(d) A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels.

(e) The dates, times, number, duration, and causes for monitor downtime incidents (other than downtime associated with zero, span, and other routine calibration checks).

(f) Whether each deviation occurred during a period of startup, shutdown, or malfunction, or during another period.

(g) The dates, times, and durations of any bypass of the control device.

**§ 60.2959 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 (a)(1) and (2) of this section.

(1) Submit a notification of the deviation within 10 days that includes the three items in paragraphs (a)(1)(i) through (iii) of this section.

(i) A statement of what caused the deviation.

(ii) A description of what you are doing to ensure that a qualified operator is accessible.

(iii) The date when you anticipate that a qualified operator will be available.

(2) Submit a status report to EPA every 4 weeks that includes the three items in paragraphs (a)(2)(i) through (iii) of this section.

(i) A description of what you are doing to ensure that a qualified operator is accessible.

(ii) The date when you anticipate that a qualified operator will be accessible.

(iii) Request approval from EPA to continue operation of the OSWI unit.

(b) If your unit was shut down by EPA, under the provisions of § 60.2911(c)(2), due to a failure to provide an accessible qualified operator, you must notify EPA that you are resuming operation once a qualified operator is accessible.

**§ 60.2960 Are there any other notifications or reports that I must submit?**

Yes, you must submit notifications as provided by § 60.7.

**§ 60.2961 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.

**§ 60.2962 Can reporting dates be changed?**

If the Administrator agrees, you may change the semiannual or annual reporting dates. See § 60.19(c) for procedures to seek approval to change your reporting date.

**Title V Operating Permits**

**§ 60.2966 Am I required to apply for and obtain a title V operating permit for my unit?**

Yes, if you are subject to this subpart, you are required to apply for and obtain a title V operating permit unless you meet the relevant requirements for an exemption specified in § 60.2887.

**§ 60.2967 When must I submit a title V permit application for my new unit?**

(a) If your new unit subject to this subpart is not subject to an earlier permit application deadline, a complete title V permit application must be submitted on or before one of the dates specified in paragraphs (a)(1) or (2) of this section. (See section 503(c) of the Clean Air Act and 40 CFR 70.5(a)(1)(i) and 40 CFR 71.5(a)(1)(i).)

(1) For a unit that commenced operation as a new source as of December 16, 2005, then a complete title V permit application must be submitted not later than December 18, 2006.

(2) For a unit that does not commence operation as a new source until after December 16, 2005, then a complete title V permit application must be submitted not later than 12 months after the date the unit commences operation as a new source.

(b) If your new unit subject to this subpart is subject to title V as a result of some triggering requirement(s) other than this subpart (for example, a unit subject to this subpart 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 paragraph (a) of this section. 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 that first causes the source to be subject to title V. (See section 503(c) of the Clean Air Act and 40 CFR 70.3(a) and (b), 40 CFR 70.5(a)(1)(i), 40 CFR 71.3(a) and (b), and 40 CFR 71.5(a)(1)(i).)

(c) A "complete" title V permit application is one that has been determined or deemed complete by the relevant permitting authority under section 503(d) of the Clean Air Act and 40 CFR 70.5(a)(2) or 40 CFR 71.5(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 sections 503(d) and 502(a) of the Clean Air Act and 40 CFR 70.7(b) and 40 CFR 71.7(b).)

**Temporary-Use Incinerators and Air Curtain Incinerators Used in Disaster Recovery**

**§ 60.2969 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 subpart 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 (a) through (c) of this section.

(a) 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 subpart. You do not need to notify the Administrator of its use or meet the emission limitations or other requirements of this subpart.

(b) 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 Administrator 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 paragraphs (b)(1) and (2) of this section.

(1) 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.

(2) 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.

(c) If you submitted the notification containing the information in paragraph (b)(2) by the date specified in paragraph (b)(1), 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 subpart during this period.

(1) 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 subpart, unless the Administrator has approved in writing your request to continue operation.

(2) If the Administrator 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 subpart during the approved time period.

### Air Curtain Incinerators That Burn Only Wood Waste, Clean Lumber, and Yard Waste

#### § 60.2970 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 subpart and subpart FFFF of this part only, air curtain incinerators include both firebox and trench burner units.

(b) Air curtain incinerators that burn only the materials listed in paragraphs (b)(1) through (4) of this section are required to meet only the requirements in §§ 60.2970 through 60.2974 and are exempt from all other requirements of this subpart.

(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.

#### § 60.2971 What are the emission limitations for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?

(a) Within 60 days after your air curtain incinerator reaches the charge rate at which it will operate, but no later than 180 days after its initial startup, you must meet the two limitations specified in paragraphs (a)(1) and (2) of this section.

(1) The opacity limitation is 10 percent (6-minute average), except as

described in paragraph (a)(2) of this section.

(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 paragraph (a) of this section apply at all times except during malfunctions.

#### § 60.2972 How must I monitor opacity for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?

(a) Use Method 9 of appendix A of this part to determine compliance with the opacity limitation.

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

(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 the previous test, then you must conduct a test for opacity upon startup of the unit.

#### § 60.2973 What are the recordkeeping and reporting requirements for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?

(a) Prior to commencing construction on your air curtain incinerator, submit the three items described in paragraphs (a)(1) through (3) of this section.

(1) Notification of your intent to construct the air curtain incinerator.

(2) Your planned initial startup date.

(3) Types of materials you plan to burn in your air curtain incinerator.

(b) 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 Administrator 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.

(c) Make all records available for submittal to the Administrator or for an inspector's review.

(d) 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.

(e) Submit initial and annual opacity test reports as electronic or paper copy on or before the applicable submittal date.

(f) Keep a copy of the initial and annual reports on site 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.

#### § 60.2974 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 subpart, you are required to apply for and obtain a title V operating permit as specified in §§ 60.2966 and 60.2967.

#### Equations

##### § 60.2975 What equations must I use?

(a) *Percent oxygen.* Adjust all pollutant concentrations to 7 percent oxygen using equation 1 of this section.

$$C_{\text{adj}} = C_{\text{meas}} * (20.9 - 7) / (20.9 - \%O_2) \quad (\text{Eq. 1})$$

Where:

$C_{\text{adj}}$  = pollutant concentration adjusted to 7 percent oxygen

$C_{\text{meas}}$  = 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:

(i) 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).

(ii) 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 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 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., CEMS 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  $O_2$ .

$E_{hj}$  = Hourly arithmetic average pollutant rate for hour "j," ppm corrected to 7 percent  $O_2$ .

## Definitions

### § 60.2977 What definitions must I know?

Terms used but not defined in this subpart are defined in the Clean Air Act and subpart A (General Provisions) of this part.

*Administrator means:*

(1) For approved and effective State section 111(d)/129 plans, the Director of the State air pollution control agency, or his or her delegatee;

(2) For Federal section 111(d)/129 plans, 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; and

(3) For NSPS, 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.

*Air curtain incinerator* means 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 subpart and subpart FFFF of this part only, air curtain incinerators include both firebox and trench burner units.

*Auxiliary fuel* means natural gas, liquified petroleum gas, fuel oil, or diesel fuel.

*Batch OSWI unit* means an OSWI unit that is designed such that neither waste charging nor ash removal can occur during combustion.

*Calendar quarter* means three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1.

*Calendar year* means 365 consecutive days starting on January 1 and ending on December 31.

*Chemotherapeutic waste* means 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.

*Class II municipal solid waste landfill* means a landfill that meets four criteria:

(1) Accepts, for incineration or disposal, less than 20 tons per day of municipal solid waste or other solid wastes based on an annual average;

(2) Is located on a site where there is no evidence of groundwater pollution caused or contributed to by the landfill;

(3) 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

(4) Serves a community that meets one of two criteria:

(i) Experiences for at least three 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.

*Class III municipal solid waste landfill* is 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:

(1) Ash from incinerated municipal waste in quantities less than 1 ton per day on an annual average, which ash must be free of food scraps that might attract animals; or

(2) Less than 5 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.

*Clean lumber* means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

*Collected from* means the transfer of material from the site at which the material is generated to a separate site where the material is burned.

*Contained gaseous material* means gases that are in a container when that container is combusted.

*Continuous emission monitoring system or CEMS* means a monitoring system for continuously measuring and recording the emissions of a pollutant from an OSWI unit.

*Continuous OSWI unit* means an OSWI unit that is designed to allow waste charging and ash removal during combustion.

*Deviation* means any instance in which a unit that meets the requirements in § 60.2885, or an owner or operator of such a source:

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

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any unit that meets the requirements in § 60.2885 and is required to obtain such a permit; or

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

*Dioxins/furans* means tetra- through octachlorinated dibenzo-p-dioxins and dibenzofurans.

*Energy recovery* means the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.

*EPA* means the Administrator of the EPA or employee of the EPA that is delegated the authority to perform the specified task.

*Institutional facility* means 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.

*Institutional waste* means solid waste (as defined in this subpart) 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 subpart); operated without energy recovery (as defined in this subpart); or operated with only waste heat recovery (as defined in this subpart). Institutional

waste also means solid waste (as defined in this subpart) combusted on site in an air curtain incinerator that is a distinct operating unit of any institutional facility.

*Institutional waste incineration unit* means any combustion unit that combusts institutional waste (as defined in this subpart) 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 § 60.2888(b)).

*Intermittent OSWI unit* means an OSWI unit that is designed to allow waste charging, but not ash removal, during combustion.

*Low-level radioactive waste* means 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 U.S.C. 2014(e)(2)).

*Malfunction* means 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.

*Metropolitan Statistical Area* means any areas listed as metropolitan statistical areas in OMB 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/>).

*Modification or modified unit* means an incineration unit you have changed on or after June 16, 2006 and that meets one of two criteria:

(1) 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 OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.

(2) Any physical change in the unit or change in the method of operating it

that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

*Municipal solid waste* means 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: (1) the term does not include industrial process wastes or medical wastes that are segregated from such other wastes; and (2) an incineration unit shall not be considered to be combusting municipal solid waste for purposes of this subpart 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 § 60.2887(b).

*Municipal waste combustion unit* means, for the purpose of this subpart and subpart FFFF of this part, any setting or equipment that combusts municipal solid waste (as defined in this subpart) 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 § 60.2888(b)).

*Other solid waste incineration (OSWI) unit* means either a very small municipal waste combustion unit or an institutional waste incineration unit, as defined in this subpart. Unit types listed in § 60.2887 as being excluded from the subpart are not OSWI units subject to this subpart. 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:

(1) The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and

(2) 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.

*Particulate matter* means total particulate matter emitted from OSWI units as measured by Method 5 or Method 29 of appendix A of this part.

*Pathological waste* means 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).

*Reconstruction* means rebuilding an incineration unit and meeting two criteria:

(1) The reconstruction begins on or after June 16, 2006.

(2) 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 OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.

*Refuse-derived fuel* means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including two fuels:

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

(2) Pelletized refuse-derived fuel.

*Shutdown* means the period of time after all waste has been combusted in the primary chamber. For continuous 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.

*Solid waste* means 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 section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material

as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).

*Standard conditions*, when referring to units of measure, means a temperature of 68 °F (20 °C) and a pressure of 1 atmosphere (101.3 kilopascals).

*Startup period* means the period of time between the activation of the system and the first charge to the OSWI unit. For batch OSWI, startup means the period of time between activation of the system and ignition of the waste.

*Very small municipal waste combustion unit* means 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 § 60.2975.

*Waste heat recovery* means the process of recovering heat from the combustion flue gases outside of the combustion firebox by convective heat transfer only.

*Wet scrubber* means 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.

*Wood waste* means 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:

- (1) Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands.
- (2) Construction, renovation, or demolition wastes.
- (3) Clean lumber.
- (4) 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).

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

- (1) Construction, renovation, and demolition wastes.
- (2) Clean lumber.

**Tables to Subpart EEEE of Part 60**

As stated in § 60.2915, you must comply with the following:

TABLE 1 TO SUBPART EEEE OF PART 60.—EMISSION LIMITATIONS

For the air pollutant	You must meet this emission limitation <sup>a</sup>	Using this averaging time	And determining compliance using this method
1. Cadmium .....	18 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of appendix A of this part.
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. <sup>b</sup>	Method 10, 10A, or 10B of appendix A of this part and CEMS.
3. Dioxins/furans (total basis) .....	33 nanograms per dry standard cubic meter.	3-run average (1 hour minimum sample meter time per run).	Method 23 of appendix A of this part.
4. Hydrogen chloride .....	15 parts per million by dry volume	3-run average (1 hour minimum sample time per run).	Method 26A of appendix A of this part.
5. Lead .....	226 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of appendix A of this part.
6. Mercury .....	74 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of appendix A of this part.
7. Opacity .....	10 percent .....	6-run average (1 hour minimum sample time per run).	Method 9 of appendix A of this part.
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 appendix A of this part, or ANSI/ASME PTC 19.10–1981 (IBR, see § 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 appendix A of this part.
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 appendix A of this part, or ANSI/ASME PTC 19.10–1981 (IBR, see § 60.17(h)) in lieu of Method 6 only.

<sup>a</sup>All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.

<sup>b</sup>Calculated each hour as the average of the previous 12 operating hours.

As stated in § 60.2916, you must comply with the following:



TABLE 4 TO SUBPART EEEE OF PART 60.—SUMMARY OF REPORTING REQUIREMENTS—Continued

Report	Due date	Contents	Reference
5. Emission limitation or operating limit deviation report.	a. 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.	vii. Information for deviations or malfunctions recorded under § 60.2949(b)(6) and (c) through (e);	§§ 60.2955 and 60.2956.
		viii. If a performance test was conducted during the reporting period, the results of the test;	§§ 60.2955 and 60.2956.
		ix. If a performance test was not conducted during the reporting period, a statement that the requirements of § 60.2934 (a) or (b) were met; and	§§ 60.2955 and 60.2956.
		x. Documentation of periods when all qualified OSWI unit operators were unavailable for more than 12 hours but less than 2 weeks.	§§ 60.2955 and 60.2956.
		i. Dates and times of deviation;	§§ 60.2957 and 60.2958.
		ii. Averaged and recorded data for those dates;	§§ 60.2957 and 60.2958.
		iii. Duration and causes of each deviation and the corrective actions taken;	§§ 60.2957 and 60.2958.
		iv. Copy of operating limit monitoring data and any test reports;	§§ 60.2957 and 60.2958.
		v. Dates, times, and causes for monitor downtimes incidents;	§§ 60.2957 and 60.2958.
		vi. Whether each deviation occurred during a period of startup, shutdown, or malfunction; and	§§ 60.2957 and 60.2958.
6. Qualified operator deviation notification.	a. Within 10 days of deviation.	vii. Dates, times, and durations of any bypass of the control device.	§§ 60.2957 and 60.2958.
		i. Statement of cause of deviation; .....	§ 60.2959(a)(1).
7. Qualified operation deviation status report.	a. Every 4 weeks following deviation.	ii. Description of efforts to have an accessible qualified operator; and	§ 60.2959(a)(1)
		iii. The date a qualified operator will be accessible .....	§ 60.2959(a)(1).
8. Qualified operator deviation notification of resumed operation.	a. Prior to resuming operation.	i. Description of efforts to have an accessible qualified operator;	§ 60.2959(a)(2).
		ii. The date a qualified operator will be accessible; and	§ 60.2959(a)(2).
		iii. Request to continue operation	§ 60.2959(a)(2).
		i. Notification that you are resuming operation .....	§ 60.2959(b).

**Note:** This table is only a summary, see the referenced sections of the rule for the complete requirements.

■ 4. Part 60 is amended by adding subpart FFFF to read as follows:

**Subpart FFFF—Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units That Commenced Construction On or Before December 9, 2004**

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**Subpart FFFF—Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units That Commenced Construction On or Before December 9, 2004****Introduction****§ 60.2980 What is the purpose of this subpart?**

This subpart establishes emission guidelines and compliance schedules

for the control of emissions from other solid waste incineration (OSWI) units. The pollutants addressed by these emission guidelines are listed in Table 2 of this subpart. These emission guidelines are developed in accordance with sections 111(d) and 129 of the Clean Air Act and subpart B of this part.

**§ 60.2981 Am I affected by this subpart?**

(a) If you are the Administrator of an air quality program in a State or United States protectorate with one or more existing OSWI units or air curtain incinerators subject to this subpart as described in § 60.2994(b) that commenced construction on or before December 9, 2004, you must submit a State plan to the U.S. Environmental Protection Agency (EPA) that implements the emission guidelines contained in this subpart.

(b) You must submit the State plan to EPA by December 18, 2006.

**§ 60.2982 Is a State plan required for all States?**

No, you are not required to submit a State plan if there are no existing OSWI units or air curtain incinerators subject to this subpart as described in § 60.2994(b) in your State and you submit a negative declaration letter in place of the State plan.

**§ 60.2983 What must I include in my State plan?**

(a) You must include the following nine items in your State plan:

- (1) Inventory of affected incineration units, including those that have ceased operation but have not been dismantled.
- (2) Inventory of emissions from affected incineration units in your State.
- (3) Compliance schedules for each affected incineration unit.
- (4) For each affected incineration unit, emission limitations, operator training and qualification requirements, a waste management plan, and operating parameter requirements that are at least as protective as the emission guidelines contained in this subpart.
- (5) Stack testing, recordkeeping, and reporting requirements.
- (6) Transcript of the public hearing on the State plan.
- (7) Provision for State progress reports to EPA.
- (8) Identification of enforceable State mechanisms that you selected for implementing the emission guidelines of this subpart.
- (9) Demonstration of your State's legal authority to carry out the sections 111(d) and 129 in your State plan.

(b) Your State plan may deviate from the format and content of the emission guidelines contained in this subpart.

(c) Your State plan may deviate from the format and content of the emission guidelines contained in this subpart.

However, if your State plan does deviate, you must demonstrate that your State plan is at least as protective as the emission guidelines contained in this subpart. Your State plan must address regulatory applicability, compliance schedule, operator training and qualification, a waste management plan, emission limitations, stack testing, operating parameter requirements, monitoring, recordkeeping and reporting, and air curtain incinerator requirements.

(c) You must follow the requirements of subpart B of this part (Adoption and Submittal of State Plans for Designated Facilities) in your State plan.

**§ 60.2984 Is there an approval process for my State plan?**

Yes, EPA will review your State plan according to § 60.27.

**§ 60.2985 What if my State plan is not approvable?**

If you do not submit an approvable State plan (or a negative declaration letter) by December 17, 2007, EPA will develop a Federal plan according to § 60.27 to implement the emission guidelines contained in this subpart. Owners and operators of incineration units not covered by an approved State plan must comply with the Federal plan. The Federal plan is an interim action and applies to units until a State plan covering those units is approved and becomes effective.

**§ 60.2986 Is there an approval process for a negative declaration letter?**

No, EPA has no formal review process for negative declaration letters. Once we receive your negative declaration letter, we will place a copy in the public docket and publish a notice in the **Federal Register**. If, at a later date, an existing incineration unit is found in your State, the Federal plan implementing the emission guidelines contained in this subpart would automatically apply to that unit until your State plan is approved.

**§ 60.2987 What compliance schedule must I include in my State plan?**

Your State plan must include compliance schedules that require OSWI units and air curtain incinerators subject to this subpart as described in § 60.2994(b) to achieve final compliance as expeditiously as practicable after approval of the State plan but not later than the earlier of the following two dates:

- (a) December 16, 2010.
- (b) Three years after the effective date of State plan approval.

**§ 60.2988 Are there any State plan requirements for this subpart that apply instead of the requirements specified in subpart B of this part?**

Yes, subpart B of this part establishes general requirements for developing and processing section 111(d) plans. This subpart applies instead of the requirements in subpart B of this part for the following:

(a) State plans developed to implement this subpart must be as protective as the emission guidelines contained in this subpart. State plans must require all OSWI units and air curtain incinerators subject to this subpart as described in § 60.2994(b) to comply by December 16, 2010 or 3 years after the effective date of State plan approval, whichever is sooner. This applies instead of the option for case-by-case less stringent emission standards and longer compliance schedules in § 60.24(f).

(b) State plans developed to implement this subpart are required to include only one increment of progress for the affected incineration units. This increment is the final compliance date in § 60.21(h)(5). This applies instead of the requirement of § 60.24(e)(1).

**§ 60.2989 Does this subpart directly affect incineration unit owners and operators in my State?**

(a) No, this subpart does not directly affect incineration unit owners and operators in your State. However, unit owners and operators must comply with the State plan you develop to implement the emission guidelines contained in this subpart.

(b) If you do not submit an approvable plan to implement and enforce the guidelines contained in this subpart by December 17, 2007, EPA will implement and enforce a Federal plan, as provided in § 60.2985, to ensure that each unit within your State reaches compliance with all the provisions of this subpart by December 16, 2010.

**§ 60.2990 What Authorities are withheld by EPA?**

The following authorities are withheld by EPA and not transferred to the State, local or tribal agency:

- (1) Approval of alternatives to the emission limitations in Table 2 of this subpart and operating limits established under § 60.3023 and Table 3 of this subpart.
- (2) Approval of petitions for specific operating limits in § 60.3024.
- (3) Approval of major alternatives to test methods.
- (4) Approval of major alternatives to monitoring.
- (5) Approval of major alternatives to recordkeeping and reporting.

(6) The status report requirements in § 60.3020(c)(2).

**Applicability of State Plans**

**§ 60.2991 What incineration units must I address in my State plan?**

Your State plan must address all incineration units in your State that meet all the requirements specified in paragraphs (a) through (c) of this section.

(a) The incineration unit is an existing incineration unit as defined in § 60.2992.

(b) The incineration unit is an OSWI unit as defined in § 60.3078 or an air curtain incinerator subject to this subpart as described in § 60.2994(b). OSWI units are very small municipal waste combustion units and institutional waste incineration units as defined in § 60.3078.

(c) The incineration unit is not excluded under § 60.2993.

**§ 60.2992 What is an existing incineration unit?**

An existing incineration unit is an OSWI unit or air curtain incinerator subject to this subpart that commenced construction on or before December 9, 2004, except as provided in paragraph (a) of this section.

(a) If the owner or operator of an incineration unit makes changes that meet the definition of modification or reconstruction on or after June 16, 2006, the unit becomes subject to subpart EEEE of this part (New Source Performance Standards for Other Solid Waste Incineration Units) and the State plan no longer applies to that unit.

(b) If the owner or operator of an existing incineration unit makes physical or operational changes to the unit primarily to comply with the State plan, then subpart EEEE of this part does not apply to that unit. Such changes do not qualify as modifications or reconstructions under subpart EEEE of this part.

**§ 60.2993 Are any combustion units excluded from my State plan?**

This subpart excludes the types of units described in paragraphs (a) through (q) of this section, as long as the owner/operator meets the requirements of this section.

(a) *Cement kilns*. The unit is excluded if it is regulated under subpart LLL of part 63 of this chapter (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry).

(b) *Co-fired combustors*. The unit, that would otherwise be considered a very small municipal waste combustion unit, is excluded if the owner/operator of the

unit meets the five requirements specified in paragraphs (b)(1) through (5) of this section.

(1) Has a Federally enforceable permit limiting the combustion of municipal solid waste to 30 percent of the total fuel input by weight.

(2) Notifies the Administrator that the unit qualifies for the exclusion.

(3) Provides the Administrator with a copy of the Federally enforceable permit.

(4) Records the weights, each calendar quarter, of municipal solid waste and of all other fuels combusted.

(5) Keeps each report for 5 years.

These records must be kept on site for at least 2 years, but may be kept off site for the remaining 3 years.

(c) *Cogeneration facilities.* The unit is excluded if it meets the three requirements specified in paragraphs (c)(1) through (3) of this section.

(1) The unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)).

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

(3) The owner/operator of the unit notifies the Administrator that the unit meets all of these criteria.

(d) *Commercial and industrial solid waste incineration units.* The unit is excluded if it is regulated under subparts CCCC or DDDD of this part or subpart III of part 62 and is required to meet the emission limitations established in those subparts.

(e) *Hazardous waste combustion units.* The unit is excluded if it meets either of the two criteria specified in paragraph (e)(1) or (2) of this section.

(1) The owner/operator of the unit is required to get a permit for the unit under section 3005 of the Solid Waste Disposal Act.

(2) The unit is regulated under 40 CFR part 63, subpart EEE (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors).

(f) *Hospital/medical/infectious waste incinerators.* The unit is excluded if it is regulated under subparts Ce or Ec of this part (New Source Performance Standards and Emission Guidelines for Hospital/Medical/Infectious Waste Incinerators) or subpart HHH of part 62 (Federal Plan for Hospital/Medical/Infectious Waste Incinerators constructed on or before June 20, 1996).

(g) *Incinerators and air curtain incinerators in isolated areas of Alaska.* The incineration unit is excluded if it is used at a solid waste disposal site in

Alaska that is classified as a Class II or Class III municipal solid waste landfill, as defined in § 60.3078.

(h) *Rural institutional waste incinerators.* The incineration unit is excluded if it is an institutional waste incinerator, as defined in § 60.3078, and the application for exclusion described in paragraphs (h)(1) and (2) of this section has been approved by the Administrator.

(1) Prior to 1 year before the final compliance date, an application and supporting documentation demonstrating that the institutional waste incineration unit meets the two requirements specified in paragraphs (h)(1)(i) and (ii) of this section must be submitted to the Administrator for approval.

(i) The unit is located more than 50 miles from the boundary of the nearest Metropolitan Statistical Area,

(ii) Alternative disposal options are not available or are economically infeasible.

(2) The application described in paragraph (h)(1) of this section must be revised and resubmitted to the Administrator for approval every 5 years following the initial approval of the exclusion for your unit.

(3) If you re-applied for an exclusion pursuant to paragraph (h)(2) of this section and were denied exclusion by the Administrator, you have 3 years from the expiration date of the current exclusion to comply with the emission limits and all other applicable requirements of this subpart.

(i) *Institutional boilers and process heaters.* The unit is excluded if it is regulated under 40 CFR part 63, subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters).

(j) *Laboratory Analysis Units.* The unit is excluded if it burns samples of materials only for the purpose of chemical or physical analysis.

(k) *Materials recovery units.* The unit is excluded if it combusts waste for the primary purpose of recovering metals. Examples include primary and secondary smelters.

(l) *Pathological waste incineration units.* The institutional waste incineration unit or very small municipal waste combustion unit is excluded from this subpart if it burns 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste as defined in § 60.3078 and the owner/operator of the

unit notifies the Administrator that the unit meets these criteria.

(m) *Small or large municipal waste combustion units.* The unit is excluded if it is regulated under subparts AAAA, BBBB, Ea, Eb, or Cb, of this part or subparts FFF or JJJ of part 62 and is required to meet the emission limitations established in those subparts.

(n) *Small power production facilities.* The unit is excluded if it meets the three requirements specified in paragraphs (n)(1) through (3) of this section.

(1) The unit qualifies as a small power-production facility under section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)).

(2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity.

(3) The owner/operator of the unit notifies the Administrator that the unit meets all of these criteria.

(o) *Temporary-use incinerators and air curtain incinerators used in disaster recovery.* The incineration unit is excluded 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 and you comply with the requirements in § 60.3061.

(p) *Units that combust contraband or prohibited goods.* The incineration unit is excluded if the unit is owned or operated by a government agency such as police, customs, agricultural inspection, or a similar agency to destroy only illegal or prohibited goods such as illegal drugs, or agricultural food products that can not be transported into the country or across state lines to prevent biocontamination. The exclusion does not apply to items either confiscated or incinerated by private, industrial, or commercial entities.

(q) *Incinerators used for national security.* Your incineration unit is excluded if it meets the requirements specified in either (q)(1) or (2) of this section.

(1) The incineration unit is used solely during military training field exercises to destroy national security materials integral to the field exercises.

(2) The incineration unit is used solely to incinerate national security materials, its use is necessary to safeguard national security, you follow the exclusion request requirements in paragraphs (q)(2)(i) and (ii) of this section, and the Administrator has approved your request for exclusion.

(i) The request for exclusion and supporting documentation must demonstrate both that the incineration unit is used solely to destroy national

security materials and that a reliable alternative to incineration that ensures acceptable destruction of national security materials is unavailable, on either a permanent or temporary basis.

(ii) The request for exclusion must be submitted to the Administrator prior to 1 year before the final compliance date.

**§ 60.2994 Are air curtain incinerators regulated under this subpart?**

(a) Air curtain incinerators that burn less than 35 tons per day of municipal solid waste or air curtain incinerators located at institutional facilities burning any amount of institutional waste generated at that facility are subject to all requirements of this subpart, including the emission limitations specified in Table 2 of this subpart.

(b) Air curtain incinerators that burn only less than 35 tons per day of the materials listed in paragraphs (b)(1) through (4) of this section collected from the general public and from residential, commercial, institutional, and industrial sources; or, air curtain incinerators located at institutional facilities that burn only the materials listed in paragraphs (b)(1) through (4) of this section generated at that facility, are required to meet only the requirements in §§ 60.3062 through 60.3069 and are exempt from all other requirements of this subpart.

(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.

**Model Rule—Use of Model Rule**

**§ 60.2996 What is the purpose of the “model rule” in this subpart?**

(a) The model rule provides the emission guidelines requirements in a standard regulation format. You must develop a State plan that is at least as protective as the model rule. You may use the model rule language as part of your State plan. Alternative language may be used in your State plan if you demonstrate that the alternative language is at least as protective as the model rule contained in this subpart.

(b) In the “model rule” of §§ 60.3000 through 60.3078, “you” means the owner or operator of an OSWI unit or air curtain incinerator subject to this subpart.

**§ 60.2997 How does the model rule relate to the required elements of my State plan?**

Use the model rule to satisfy the State plan requirements specified in § 60.2983(a)(4) and (5).

**§ 60.2998 What are the principal components of the model rule?**

The model rule contains nine major components, as follows:

- (a) Compliance schedule.
- (b) Waste management plan.
- (c) Operator training and qualification.
- (d) Emission limitations and operating limits.
- (e) Performance testing.
- (f) Initial compliance requirements.
- (g) Continuous compliance requirements.
- (h) Monitoring.
- (i) Recordkeeping and reporting.

**Model Rule—Compliance Schedule**

**§ 60.3000 When must I comply?**

Table 1 of this subpart specifies the final compliance date. You must submit a notification to the Administrator stating whether final compliance has been achieved, postmarked within 10 business days after the final compliance date in Table 1 of this subpart.

**§ 60.3001 What must I do if I close my OSWI unit and then restart it?**

(a) If you close your 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 of this subpart.

(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.

**§ 60.3002 What must I do if I plan to permanently close my OSWI unit and not restart it?**

You must close the unit before the final compliance date specified in Table 1 of this subpart.

**Model Rule—Waste Management Plan**

**§ 60.3010 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.

**§ 60.3011 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 of this subpart. Section 60.3031 specifies the date by which you are required to conduct your performance test.

**§ 60.3012 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.

**Model Rule—Operator Training and Qualification**

**§ 60.3014 What are the operator training and qualification requirements?**

(a) No 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 § 60.3020.

(b) Operator training and qualification must be obtained through a State-approved program or by completing the requirements included in paragraph (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 (c)(1) through (3) of this section.

(1) Training on the 13 subjects listed in paragraphs (c)(1)(i) through (xiii) of this section.

(i) Environmental concerns, including types of emissions.

(ii) Basic combustion principles, including products of combustion.

(iii) Operation of the specific type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures.

(iv) Combustion controls and monitoring.

(v) Operation of air pollution control equipment and factors affecting performance (if applicable).

(vi) Inspection and maintenance of the incinerator and air pollution control devices.

(vii) Methods to monitor pollutants (including monitoring of incinerator and control device operating parameters)

and monitoring equipment calibration procedures, where applicable.

(viii) Actions to correct malfunctions or conditions that may lead to malfunction.

(ix) Bottom and fly ash characteristics and handling procedures.

(x) Applicable Federal, State, and local regulations, including Occupational Safety and Health Administration workplace standards.

(xi) Pollution prevention.

(xii) Waste management practices.

(xiii) 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.

**§ 60.3015 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 (a) through (c) of this section.

(a) The final compliance date specified in Table 1 of this subpart.

(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.

**§ 60.3016 How do I obtain my operator qualification?**

(a) You must obtain operator qualification by completing a training course that satisfies the criteria under § 60.3014(c).

(b) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under § 60.3014(c)(2).

**§ 60.3017 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 (a) through (e) of this section.

(a) Update of regulations.

(b) Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling.

(c) Inspection and maintenance.

(d) Responses to malfunctions or conditions that may lead to malfunction.

(e) Discussion of operating problems encountered by attendees.

**§ 60.3018 How do I renew my lapsed operator qualification?**

You must renew a lapsed operator qualification by one of the two methods

specified in paragraphs (a) and (b) of this section.

(a) For a lapse of less than 3 years, you must complete a standard annual refresher course described in § 60.3017.

(b) For a lapse of 3 years or more, you must repeat the initial qualification requirements in § 60.3016(a).

**§ 60.3019 What site-specific documentation is required?**

(a) Documentation must be available at the facility and readily accessible for all OSWI unit operators that addresses the nine topics described in paragraphs (a)(1) through (9) of this section. You must maintain this information and the training records required by paragraph (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 subpart.

(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 subpart.

(6) Monitoring procedures for demonstrating compliance with the operating limits established under this subpart.

(7) Reporting and recordkeeping procedures.

(8) The waste management plan required under §§ 60.3010 through 60.3012.

(9) Procedures for handling ash.

(b) You must establish a program for reviewing the information listed in paragraph (a) of this section with each incinerator operator.

(1) The initial review of the information listed in paragraph (a) of this section must be conducted by the latest of three dates specified in paragraphs (b)(1)(i) through (iii) of this section.

(i) The final compliance date specified in Table 1 of this subpart.

(ii) Six months after your OSWI unit startup.

(iii) 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 paragraph (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 (c)(1) through (3) of this section.

(1) Records showing the names of OSWI unit operators who have completed review of the information in paragraph (a) of this section as required by paragraph (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 § 60.3014, met the criteria for qualification under § 60.3016, and maintained or renewed their qualification under § 60.3017 or § 60.3018. 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.

**§ 60.3020 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 (a) through (c) of this section, depending on the length of time that a qualified operator is not accessible.

(a) When all qualified operators are not accessible for 12 hours or less, the 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 § 60.3019(a) within the past 12 months. You do not need to notify the Administrator or include this as a deviation in your annual report.

(b) 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 § 60.3019(a) 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 § 60.3051.

(c) When all qualified operators are not accessible for 2 weeks or more, you must take the two actions that are described in paragraphs (c)(1) and (2) of this section.

(1) Notify the Administrator of this deviation in writing within 10 days. 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.

(2) Submit a status report to EPA 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 EPA to continue operation of the OSWI unit. You must submit the first status report 4 weeks after you notify the Administrator of the deviation under paragraph (c)(1) of this section. If EPA 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 paragraphs (c)(2)(i) and (ii) of this section.

(i) A qualified operator is accessible as required under § 60.3014(a).

(ii) You notify EPA that a qualified operator is accessible and that you are resuming operation.

#### **Model Rule—Emission Limitations and Operating Limits**

##### **§ 60.3022 What emission limitations must I meet and by when?**

You must meet the emission limitations specified in Table 2 of this subpart on the date the initial performance test is required or completed (whichever is earlier). Section 60.3031 specifies the date by which you are required to conduct your performance test.

##### **§ 60.3023 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 of this subpart) as described in paragraphs (a)(1) through (4) of this section during the initial performance test.

(1) Maximum charge rate, calculated using one of the two different procedures in paragraphs (a)(1)(i) or (ii) of this section, as appropriate.

(i) 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.

(ii) 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 of this subpart.

##### **§ 60.3024 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 § 60.3022, you must petition 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 EPA. Your petition must include the five items listed in paragraphs (a) through (e) of this section.

(a) Identification of the specific parameters you propose to use as operating limits.

(b) 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.

(c) 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.

(d) 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.

(e) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

##### **§ 60.3025 What happens during periods of startup, shutdown, and malfunction?**

The emission limitations and operating limits apply at all times except during OSWI unit startups, shutdowns, or malfunctions.

#### **Model Rule—Performance Testing**

##### **§ 60.3027 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 of this subpart.

(c) All performance tests must be conducted using the minimum run duration specified in Table 2 of this subpart.

(d) Method 1 of appendix A of this part must be used to select the sampling location and number of traverse points.

(e) Method 3A or 3B of appendix A of this part must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B of appendix A of this part 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 § 60.3076.

(g) Method 26A of appendix A of this part must be used for hydrogen chloride concentration analysis, with the additional requirements specified in paragraphs (g)(1) through (3) of this section.

(1) The probe and filter must be conditioned prior to sampling using the procedure described in paragraphs (g)(1)(i) through (iii) of this section.

(i) 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 appendix A of this part. For the conditioning run, water can be used as the impinger solution.

(ii) 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.

(iii) 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 °C (248 °F) and 134 °C (273 °F) must be maintained.

(3) If water droplets are present in the sample gas stream, the requirements specified in paragraphs (g)(3)(i) and (ii) of this section must be met.

(i) The cyclone described in section 6.1.4 of Method 26A of appendix A of this part must be used.

(ii) The post-test moisture removal procedure described in section 8.1.6 of Method 26A of appendix A of this part must be used.

**§ 60.3028 How are the performance test data used?**

You use results of performance tests to demonstrate compliance with the emission limitations in Table 2 of this subpart.

**Model Rule—Initial Compliance Requirements**

**§ 60.3030 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 § 60.8, to determine compliance with the emission limitations in Table 2 of this subpart and to establish operating limits using the procedure in § 60.3023 or § 60.3024. The initial performance test must be conducted using the test methods listed in Table 2 of this subpart and the procedures in § 60.3027.

**§ 60.3031 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 of this subpart.

**Model Rule—Continuous Compliance Requirements**

**§ 60.3033 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 of this subpart for each OSWI unit to determine compliance with the emission limitations. The annual performance test must be conducted using the test methods listed in Table 2 of this subpart and the procedures in § 60.3027.

(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 constitutes a deviation from the emission limitation.

(c) You must continuously monitor the operating parameters specified in § 60.3023 or established under § 60.3024. Three-hour rolling average values are used to determine compliance with the operating limits unless a different averaging period is established under § 60.3024. A 3-hour rolling average value (unless a different averaging period is established under § 60.3024) 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.

**§ 60.3034 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.

**§ 60.3035 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 OSWI 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.

**§ 60.3036 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

Administrator may request a repeat performance test at any time.

**Model Rule—Monitoring**

**§ 60.3038 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 § 60.13.

**§ 60.3039 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 of this subpart.

(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 EPA Method 10, 10A, or 10B of appendix A of this part. Use EPA Method 3 or 3A to measure oxygen. Collect the data during each initial and annual evaluation of your continuous emission monitoring systems following the applicable performance specifications in appendix B of this part. Table 4 of this subpart 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 appendix F of this part for each continuous emission monitoring system. The procedures include daily calibration drift and quarterly accuracy determinations.

**§ 60.3040 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 appendix F of this part.

**§ 60.3041 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. Section 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 paragraphs (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 paragraphs (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 of this subpart. 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.

**§ 60.3042 How do I convert my 1-hour arithmetic averages into the appropriate averaging times and units?**

(a) Use Equation 1 in § 60.3076 to calculate emissions at 7 percent oxygen.

(b) Use Equation 2 in § 60.3076 to calculate the 12-hour rolling averages for concentrations of carbon monoxide.

**§ 60.3043 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 § 60.3022, 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 of this subpart. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in Table 3 of this subpart 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 § 60.3022, 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 § 60.3024.

**§ 60.3044 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 OSWI 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 paragraphs (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 subpart, including data averages and calculations. You must use all the data collected during all other periods in assessing compliance with the operating limits.

**Model Rule—Recordkeeping and Reporting**

**§ 60.3046 What records must I keep?**

You must maintain the 14 items (as applicable) as specified in paragraphs

(a) through (n) of this section for a period of at least 5 years.

(a) Calendar date of each record.

(b) Records of the data described in paragraphs (b)(1) through (8) of this section.

(1) The OSWI unit charge dates, times, weights, and hourly charge rates.

(2) Liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable.

(3) 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.

(4) Liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable.

(5) For OSWI units that establish operating limits for controls other than wet scrubbers under § 60.3024, you must maintain data collected for all operating parameters used to determine compliance with the operating limits.

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

(7) All 12-hour rolling average values of carbon monoxide emissions and all 3-hour rolling average values of continuously monitored operating parameters.

(8) Records of the dates, times, and durations of any bypass of the control device.

(c) 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.

(d) Identification of calendar dates, times, and durations of malfunctions, and a description of the malfunction and the corrective action taken.

(e) Identification of calendar dates and times for which monitoring data show a deviation from the carbon monoxide emissions limit in Table 2 of this subpart or a deviation from the operating limits in Table 3 of this subpart or a deviation from other operating limits established under § 60.3024 with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.

(f) Calendar dates when continuous monitoring systems did not collect the minimum amount of data required under §§ 60.3041 and 60.3044.

(g) For carbon monoxide continuous emissions monitoring systems, document the results of your daily drift tests and quarterly accuracy determinations according to Procedure 1 of appendix F of this part.

(h) Records of the calibration of any monitoring devices required under § 60.3043.

(i) 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.

(j) Records showing the names of OSWI unit operators who have completed review of the information in § 60.3019(a) as required by § 60.3019(b), including the date of the initial review and all subsequent annual reviews.

(k) Records showing the names of the OSWI unit operators who have completed the operator training requirements under § 60.3014, met the criteria for qualification under § 60.3016, and maintained or renewed their qualification under § 60.3017 or § 60.3018. 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.

(l) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

(m) Equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment.

(n) The information listed in § 60.3019(a).

**§ 60.3047 Where and in what format must I keep my records?**

(a) 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) 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 Administrator.

**§ 60.3048 What reports must I submit?**

See Table 5 of this subpart for a summary of the reporting requirements.

**§ 60.3049 What information must I submit following my initial performance test?**

You must submit the information specified in paragraphs (a) through (c) of

this section no later than 60 days following the initial performance test. All reports must be signed by the facilities manager.

(a) The complete test report for the initial performance test results obtained under § 60.3030, as applicable.

(b) The values for the site-specific operating limits established in § 60.3023 or § 60.3024.

(c) The waste management plan, as specified in §§ 60.3010 through 60.3012.

**§ 60.3050 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 § 60.3049. You must submit subsequent reports no more than 12 months following the previous report.

**§ 60.3051 What information must I include in my annual report?**

The annual report required under § 60.3050 must include the ten items listed in paragraphs (a) through (j) 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 §§ 60.3052 through 60.3054.

(a) Company name and address.

(b) Statement by the owner or operator, with their name, title, and signature, certifying the truth, accuracy, and completeness of the report. Such certifications must also comply with the requirements of 40 CFR 70.5(d) or 40 CFR 71.5(d).

(c) Date of report and beginning and ending dates of the reporting period.

(d) The values for the operating limits established pursuant to § 60.3023 or § 60.3024.

(e) 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.

(f) 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.

(g) Information recorded under § 60.3046(b)(6) and (c) through (e) for the calendar year being reported.

(h) If a performance test was conducted during the reporting period, the results of that test.

(i) If you met the requirements of § 60.3035(a) or (b), and did not conduct a performance test during the reporting period, you must state that you met the requirements of § 60.3035(a) or (b), and, therefore, you were not required to conduct a performance test during the reporting period.

(j) Documentation of periods when all qualified OSWI unit operators were unavailable for more than 12 hours, but less than 2 weeks.

**§ 60.3052 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 subpart, 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).

**§ 60.3053 What must I include in the deviation report?**

In each report required under § 60.3052, for any pollutant or operating parameter that deviated from the emission limitations or operating limits specified in this subpart, include the seven items described in paragraphs (a) through (g) of this section.

(a) The calendar dates and times your unit deviated from the emission limitations or operating limit requirements.

(b) The averaged and recorded data for those dates.

(c) Durations and causes of each deviation from the emission limitations or operating limits and your corrective actions.

(d) A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels.

(e) The dates, times, number, duration, and causes for monitor downtime incidents (other than downtime associated with zero, span, and other routine calibration checks).

(f) Whether each deviation occurred during a period of startup, shutdown, or malfunction, or during another period.

(g) The dates, times, and durations of any bypass of the control device.

**§ 60.3054 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 (a)(1) and (2) of this section.

(1) Submit a notification of the deviation within 10 days that includes the three items in paragraphs (a)(1)(i) through (iii) of this section.

(i) A statement of what caused the deviation.

(ii) A description of what you are doing to ensure that a qualified operator is accessible.

(iii) The date when you anticipate that a qualified operator will be available.

(2) Submit a status report to EPA every 4 weeks that includes the three items in paragraphs (a)(2)(i) through (iii) of this section.

(i) A description of what you are doing to ensure that a qualified operator is accessible.

(ii) The date when you anticipate that a qualified operator will be accessible.

(iii) Request approval from EPA to continue operation of the OSWI unit.

(b) If your unit was shut down by EPA, under the provisions of § 60.3020(c)(2), due to a failure to provide an accessible qualified operator, you must notify EPA that you are resuming operation once a qualified operator is accessible.

**§ 60.3055 Are there any other notifications or reports that I must submit?**

Yes, you must submit notifications as provided by § 60.7.

**§ 60.3056 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.

**§ 60.3057 Can reporting dates be changed?**

If the Administrator agrees, you may change the semiannual or annual reporting dates. See § 60.19(c) for procedures to seek approval to change your reporting date.

**Model Rule—Title V Operating Permits****§ 60.3059 Am I required to apply for and obtain a title V operating permit for my unit?**

Yes, if you are subject to an applicable EPA-approved and effective Clean Air Act section 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 § 60.2993.

**§ 60.3060 When must I submit a title V permit application for my existing unit?**

(a)(1) 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 (a)(1)(i) through (iii) of this section. (See sections 129(e), 503(c), 503(d), and 502(a) of the Clean Air Act and 40 CFR 70.5(a)(1)(i) and 40 CFR 71.5(a)(1)(i).)

(i) 12 months after the effective date of any applicable EPA-approved Clean Air Act section 111(d)/129 State or Tribal plan.

(ii) 12 months after the effective date of any applicable Federal plan.

(iii) December 16, 2008.

(2) 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 Clean Air Act section 111(d)/129 State or Tribal plan is approved by EPA and becomes effective.

(b) If your existing unit is subject to title V as a result of some triggering requirement(s) other than those specified in paragraph (a) 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 paragraph (a). 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 section 503(c) of the Clean Air Act and 40 CFR 70.3(a) and (b), 40 CFR 70.5(a)(1)(i), 40 CFR 71.3(a) and (b), and 40 CFR 71.5(a)(1)(i).)

(c) A "complete" title V permit application is one that has been determined or deemed complete by the relevant permitting authority under section 503(d) of the Clean Air Act and 40 CFR 70.5(a)(2) or 40 CFR 71.5(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 sections 503(d) and 502(a) of the Clean Air Act and 40 CFR 70.7(b) and 40 CFR 71.7(b).)

**Model Rule—Temporary-Use Incinerators and Air Curtain Incinerators Used in Disaster Recovery****§ 60.3061 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 subpart 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 (a) through (c) of this section.

(a) 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 subpart. You do not need to notify the Administrator of its use or meet the emission limitations or other requirements of this subpart.

(b) 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 Administrator 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 paragraphs (b)(1) and (2) of this section.

(1) 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.

(2) 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.

(c) If you submitted the notification containing the information in paragraph (b)(2) by the date specified in paragraph (b)(1), 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 subpart during this period.

(1) 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 subpart, unless the Administrator has approved in writing your request to continue operation.

(2) If the Administrator 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 subpart during the approved time period.

#### **Model Rule—Air Curtain Incinerators That Burn Only Wood Waste, Clean Lumber, and Yard Waste**

##### **§ 60.3062 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 subpart and subpart EEEE of this part only, air curtain incinerators include both firebox and trench burner units.

(b) Air curtain incinerators that burn only the materials listed in paragraphs (b)(1) through (4) of this section are required to meet only the requirements in §§ 60.3062 through 60.3069 and are exempt from all other requirements of this subpart.

(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.

##### **§ 60.3063 When must I comply if my air curtain incinerator burns only wood waste, clean lumber, and yard waste?**

Table 1 of this subpart specifies the final compliance date. You must submit a notification to the Administrator postmarked within 10 business days after the final compliance date in Table 1 of this subpart.

##### **§ 60.3064 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 of this subpart.

(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.

##### **§ 60.3065 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 of this subpart.

##### **§ 60.3066 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 of this subpart, you must meet the two limitations specified in paragraphs (a)(1) and (2) of this section.

(1) The opacity limitation is 10 percent (6-minute average), except as described in paragraph (a)(2) of this section.

(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 paragraph (a) of this section apply at all times except during malfunctions.

##### **§ 60.3067 How must I monitor opacity for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?**

(a) Use Method 9 of appendix A of this part to determine compliance with the opacity limitation.

(b) Conduct an initial test for opacity as specified in § 60.8 within 180 days after the final compliance date in Table 1 of this subpart.

(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.

##### **§ 60.3068 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 Administrator 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 Administrator 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.

##### **§ 60.3069 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 subpart, you are required to apply for and obtain a title V operating permit as specified in §§ 60.3059 and 60.3060.

#### **Model Rule—Equations**

##### **§ 60.3076 What equations must I use?**

(a) *Percent oxygen.* Adjust all pollutant concentrations to 7 percent oxygen using Equation 1 of this section.

$$C_{\text{adj}} = C_{\text{meas}} * (20.9 - 7) / (20.9 - \%O_2) \quad (\text{Eq. 1})$$

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:

(i) 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).

(ii) 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 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 ( $E_{hj}$ ) are obtained (e.g., CEMS 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  $O_2$ .

$E_{hj}$  = Hourly arithmetic average pollutant rate for hour “j,” ppm corrected to 7 percent  $O_2$ .

#### Model Rule—Definitions

##### § 60.3078 What definitions must I know?

Terms used but not defined in this subpart are defined in the Clean Air Act and subpart A (General Provisions) of this part.

*Administrator* means:

(1) For approved and effective State section 111(d)/129 plans, the Director of the State air pollution control agency, or his or her delegatee;

(2) For Federal section 111(d)/129 plans, 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; and

(3) For NSPS, 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.

*Air curtain incinerator* means 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 subpart and subpart EEEE only, air curtain incinerators include both firebox and trench burner units.

*Auxiliary fuel* means natural gas, liquefied petroleum gas, fuel oil, or diesel fuel.

*Batch OSWI unit* means an OSWI unit that is designed such that neither waste charging nor ash removal can occur during combustion.

*Calendar quarter* means three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1.

*Calendar year* means 365 consecutive days starting on January 1 and ending on December 31.

*Chemotherapeutic waste* means 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.

*Class II municipal solid waste landfill* means a landfill that meets four criteria:

(1) Accepts, for incineration or disposal, less than 20 tons per day of

municipal solid waste or other solid wastes based on an annual average;

(2) Is located on a site where there is no evidence of groundwater pollution caused or contributed to by the landfill;

(3) 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

(4) Serves a community that meets one of two criteria:

(i) Experiences for at least three 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.

*Class III municipal solid waste landfill* is 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:

(1) 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

(2) 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.

*Clean lumber* means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

*Collected from* means the transfer of material from the site at which the material is generated to a separate site where the material is burned.

*Contained gaseous material* means gases that are in a container when that container is combusted.

*Continuous emission monitoring system or CEMS* means a monitoring system for continuously measuring and recording the emissions of a pollutant from an OSWI unit.

*Continuous OSWI unit* means an OSWI unit that is designed to allow waste charging and ash removal during combustion.

*Deviation* means any instance in which a unit that meets the requirements in § 60.2991, or an owner or operator of such a source:

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

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any unit that meets requirements in § 60.2991 and is required to obtain such a permit; or

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

*Dioxins/furans* means tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans.

*Energy recovery* means the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.

*EPA* means the Administrator of the EPA or employee of the EPA that is delegated the authority to perform the specified task.

*Institutional facility* means 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.

*Institutional waste* means solid waste (as defined in this subpart) 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 subpart); operated without energy recovery (as defined in this subpart); or operated with only waste heat recovery (as defined in this subpart). Institutional waste also means solid waste (as defined in this subpart) combusted on site in an air curtain incinerator that is

a distinct operating unit of any institutional facility.

*Institutional waste incineration unit* means any combustion unit that combusts institutional waste (as defined in this subpart) 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 § 60.2994(b)).

*Intermittent OSWI unit* means an OSWI unit that is designed to allow waste charging, but not ash removal, during combustion.

*Low-level radioactive waste* means 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 U.S.C. 2014(e)(2)).

*Malfunction* means 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.

*Metropolitan Statistical Area* means any areas listed as metropolitan statistical areas in OMB 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/>).

*Modification or modified unit* means an incineration unit you have changed on or after June 16, 2006 and that meets one of two criteria:

(1) 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 OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.

(2) 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

section 129 or section 111 of the Clean Air Act has established standards.

*Municipal solid waste* means 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: (1) The term does not include industrial process wastes or medical wastes that are segregated from such other wastes; and (2) an incineration unit shall not be considered to be combusting municipal solid waste for purposes of this subpart 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 § 60.2993(b).

*Municipal waste combustion unit* means, for the purpose of this subpart and subpart EEEE, any setting or equipment that combusts municipal solid waste (as defined in this subpart) 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 § 60.2994(b)).

*Other solid waste incineration (OSWI) unit* means either a very small municipal waste combustion unit or an institutional waste incineration unit, as defined in this subpart. Unit types listed in § 60.2993 as being excluded from the subpart are not OSWI units subject to this subpart. 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:

(1) The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and

(2) 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.

*Particulate matter* means total particulate matter emitted from OSWI units as measured by Method 5 or Method 29 of appendix A of this part.

*Pathological waste* means 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).

*Reconstruction* means rebuilding an incineration unit and meeting two criteria:

(1) The reconstruction begins on or after June 16, 2006.

(2) 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 OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.

*Refuse-derived fuel* means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including two fuels:

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

(2) Pelletized refuse-derived fuel.

*Shutdown* means the period of time after all waste has been combusted in the primary chamber. For continuous 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.

*Solid waste* means 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 section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).

*Standard conditions*, when referring to units of measure, means a temperature of 68°F (20°C) and a pressure of 1 atmosphere (101.3 kilopascals).

*Startup period* means the period of time between the activation of the system and the first charge to the OSWI unit. For batch OSWI, startup means the period of time between activation of the system and ignition of the waste.

*Very small municipal waste combustion unit* means 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 § 60.3076.

*Waste heat recovery* means the process of recovering heat from the combustion flue gases outside of the combustion firebox by convective heat transfer only.

*Wet scrubber* means an add-on air pollution control device that utilizes an aqueous or alkaline scrubbing liquor to collect particulate matter (including nonvolatile metals and condensed organics) and/or to absorb and neutralize acid gases.

*Wood waste* means 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:

(1) Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/

retail, institutional, or industrial sources as part of maintaining yards or other private or public lands.

(2) Construction, renovation, or demolition wastes.

(3) Clean lumber.

(4) 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).

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

(1) Construction, renovation, and demolition wastes.

(2) Clean lumber.

**Tables to Subpart FFFF of Part 60**

As stated in § 60.3000, you must comply with the following:

**TABLE 1 TO SUBPART FFFF OF PART 60.—MODEL RULE—COMPLIANCE SCHEDULE**

Complete this action	By this date <sup>a</sup>
Final compliance <sup>b</sup> .....	(Dates to be specified in State plan) <sup>c</sup> .

<sup>a</sup> Site-specific schedules can be used at the discretion of the State.

<sup>b</sup> 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.

<sup>c</sup> The date can be no later than 3 years after the effective date of State plan approval or December 16, 2010, whichever is earlier.

As stated in § 60.3022, you must comply with the following:

**TABLE 2 TO SUBPART FFFF OF PART 60.—MODEL RULE—EMISSION LIMITATIONS**

For the air pollutant	You must meet this emission limitation <sup>a</sup>	Using this averaging time	And determining compliance using this method
1. Cadmium .....	18 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of appendix A of this part.
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 <sup>b</sup> .	Method 10, 10A, or 10B of appendix A of this part 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 appendix A of this part.

TABLE 2 TO SUBPART FFFF OF PART 60.—MODEL RULE—EMISSION LIMITATIONS—Continued

For the air pollutant	You must meet this emission limitation <sup>a</sup>	Using this averaging time	And determining compliance using this method
4. Hydrogen chloride ...	15 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 26A of appendix A of this part.
5. Lead .....	226 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of appendix A of this part.
6. Mercury .....	74 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of appendix A of this part.
7. Opacity .....	10 percent .....	6-run average (1 hour minimum sample time per run).	Method 9 of appendix A of this part.
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 appendix A of this part, or ANSI/ASME PTC 19.10-1981 (IBR, see § 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 appendix A of this part.
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 appendix A of this part, or ANSI/ASME PTC 19.10-1981 (IBR, see § 60.17(h)) in lieu of Method 6 only.

<sup>a</sup> All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.

<sup>b</sup> Calculated each hour as the average of the previous 12 operating hours.

As stated in § 60.3023, you must comply with the following:

TABLE 3 TO SUBPART FFFF OF PART 60.—MODEL RULE—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. <sup>a</sup>
2. Pressure drop across the wet scrubber or amperage to wet scrubber.	Minimum pressure drop or amperage.	Continuous .....	Every 15 minutes .....	3-hour rolling. <sup>a</sup>
3. Scrubber liquor flow rate	Minimum flow rate .....	Continuous .....	Every 15 minutes .....	3-hour rolling. <sup>a</sup>
4. Scrubber liquor pH .....	Minimum pH .....	Continuous .....	Every 15 minutes .....	3-hour rolling. <sup>a</sup>

<sup>a</sup> Calculated each hour as the average of the previous 3 operating hours.

As stated in § 60.3039, you must comply with the following:

TABLE 4 TO SUBPART FFFF OF PART 60.—MODEL RULE—REQUIREMENTS FOR CONTINUOUS EMISSION MONITORING SYSTEMS (CEMS)

For the following pollutants	Use the following span values for your CEMS	Use the following performance specifications (P.S.) in appendix B of this part for your CEMS	If needed to meet minimum data requirements, use the following alternate methods in appendix A of this part 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 § 60.17(h)) in lieu of Method 3B only.

As stated in § 60.3048, you must comply with the following:



TABLE 5 TO SUBPART FFFF OF THE PART 60.—MODEL RULE—SUMMARY OF REPORTING REQUIREMENTS—Continued

Report	Due date	Contents	Reference
5. Qualified operator deviation notification.	a. Within 10 days of deviation	i. Statement of cause of deviation;	§ 60.3054(a)(1).
		ii. Description of efforts to have an accessible qualified operator; and.	§ 60.3054(a)(1).
		iii. The date a qualified operator will be accessible.	§ 60.3054(a)(1).
6. Qualified operation deviation status report.	a. Every 4 weeks following deviation	i. Description of efforts to have an accessible qualified operator;.	§ 60.3054(a)(2).
		ii. The date a qualified operator will be accessible; and.	§ 60.3054(a)(2).
		iii. Request to continue operation	§ 60.3054(a)(2).
7. Qualified operator deviation notification of resumed operation.	a. Prior to resuming operation	i. Notification that you are resuming operation.	§ 60.3054(b).

**Note:** This table is only a summary, see the referenced sections of the rule for the complete requirements.

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