ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA–HQ–OAR–2003–0119; FRL–9148–4]

RIN 2060–AO12

Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: On December 1, 2000, EPA adopted new source performance standards and emission guidelines for commercial and industrial solid waste incineration units established under Sections 111 and 129 of the Clean Air Act. In 2001, EPA granted a petition for reconsideration regarding the definitions of "commercial and industrial waste" and "commercial and industrial solid waste incineration unit." In 2001, the United States Court of Appeals for the District of Columbia Circuit granted EPA's voluntary remand, without vacatur, of the 2000 rule. In 2005, EPA proposed and finalized the commercial and industrial solid waste incineration definition rule which revised the definition of "solid waste," "commercial and industrial waste," and "commercial and industrial waste incineration unit." In 2007, the United States Court of Appeals for the District of Columbia Circuit vacated and remanded the 2005 commercial and industrial solid waste incineration definition rule.

This action provides EPA's response to the 2001 voluntary remand of the 2000 rule and the vacatur and remand of the commercial and industrial solid waste incineration definition rule in 2007. In addition, this action includes the five-year technology review of the new source performance standards and emission guidelines required under Section 129. This action also proposes other amendments that EPA believes are necessary to adequately address air emissions from commercial and industrial solid waste incineration units.

DATES: *Comments.* Comments must be received on or before July 19, 2010. Under the Paperwork Reduction Act, comments on the information collection provisions must be received by the Office of Management and Budget (OMB) on or before July 6, 2010.

Public Hearing. We will hold a public hearing concerning this proposed rule and the interrelated proposed Boiler and RCRA rules, discussed in this proposal and published in the proposed rules section of today's **Federal Register**, on June 21, 2010. Persons requesting to speak at a public hearing must contact EPA by June 14, 2010.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OAR–2003–0119, by one of the following methods:

http://www.regulations.gov: Follow the on-line instructions for submitting comments.

E-mail: Send your comments via electronic mail to *a-and-r-Docket@epa.gov,* Attention Docket ID No. EPA–HQ–OAR–2003–0119.

Facsimile: Fax your comments to (202) 566–9744, Attention Docket ID No. EPA–HQ–OAR–2003–0119.

Mail: Send your comments to: EPA Docket Center (EPA/DC), Environmental Protection Agency, Mailcode 6102T, 1200 Pennsylvania Ave., NW., Washington, DC 20460, Attention Docket ID No. EPA–HQ–OAR–2003–0119. Please include a total of two copies. We request that a separate copy also be sent to the contact person identified below (*see* **FOR FURTHER INFORMATION CONTACT**).

Hand Delivery: Deliver your comments to: EPA Docket Center (EPA/DC), EPA West Building, Room 3334, 1301 Constitution Ave., NW., Washington, DC 20460, Attention Docket ID No. EPA–HQ–OAR–2003–0119. Such deliveries are accepted only during the normal hours of operation (8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays), and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA–HQ–OAR–2003–0119. The EPA's policy is that all comments received will be included in the public docket and may be made available on-line at *http://www.regulations.gov,* including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *http://www.regulations.gov* or e-mail. The *http://www.regulations.gov* Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *http://www.regulations.gov,* your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption and be free of any defects or viruses.

Public Hearing: We will hold a public hearing concerning the proposed rule on June 21, 2010. Persons interested in presenting oral testimony at the hearing should contact Ms. Joan Rogers, Natural Resources and Commerce Group, at (919) 541–4487 by June 14, 2010. The public hearing will be held in the Washington, DC area at a location and time that will be posted at the following Web site: *http://www.epa.gov/airquality/combustion.* Please refer to this Web site to confirm the date of the public hearing as well. If no one requests to speak at the public hearing by June 14, 2010 then the public hearing will be cancelled and a notification of cancellation posted on the following Web site: *http://www.epa.gov/airquality/combustion.*

Docket: EPA has established a docket for this action under Docket ID No. EPA–HQ–OAR–2003–0119. All documents in the docket are listed in the *http://www.regulations.gov* index. Although listed in the index, some information is not publicly available, *e.g.,* CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy form. Publicly available docket materials are available either electronically at *http://www.regulations.gov* or in hard copy at the EPA Docket Center EPA/DC, EPA West, Room 3334, 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. Charlene Spells, Natural Resource and Commerce Group, Sector Policies and Programs Division (E143–03), Environmental Protection Agency, Research Triangle Park, North Carolina

27711; telephone number: (919) 541–5255; fax number: (919) 541–3470; e-mail address: *spells.charlene@epa.gov* or Ms. Toni Jones, Natural Resource and Commerce Group, Sector Policies and Programs Division (E143–03), Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–0316; fax number: (919) 541–3470; e-mail address: *jones.toni@epa.gov.*

SUPPLEMENTARY INFORMATION:

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

I. General Information

A. Does the proposed action apply to me?

Regulated Entities. Categories and entities potentially affected by the proposed action are those which operate commercial and industrial solid waste incineration (CISWI) units. The new source performance standards (NSPS) and emission guidelines (EG), hereinafter referred to as "standards," for CISWI affect the following categories of sources:

Category	NAICS Code	Examples of potentially regulated entities [1]
Any industrial or commercial facility using a solid waste incinerator.	211, 212, 486	Mining, oil and gas exploration operations; pipeline operators.
	221	Utility providers.
	321, 322, 337	Manufacturers of wood products; manufacturers of pulp, paper and paperboard; manufacturers of furniture and related products.
	325, 326	Manufacturers of chemicals and allied products; manufacturers of plastics and rubber products.
	327	Manufacturers of cement.
	333, 336	Manufacturers of machinery; manufacturers of transportation equipment.
	42, 44, 45	Wholesale merchants; retail merchants.

Thistable is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by the proposed action. To determine whether your facility would be affected by the proposed action, you should examine the applicability criteria in 40 CFR 60.2010 of subpart CCCC and 40 CFR 60.2505 of subpart DDDD. If you have any questions regarding the applicability of the proposed action to a particular entity, contact the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

[1] Note that the rule contains definitions of the subcategories of CISWI units and a list of types of combustion units that are excluded. For further discussion, see Section III.D.1 of this preamble.

B. What should I consider as I prepare my comments?

1. Submitting CBI

Do not submit information that you consider to be CBI electronically through *http://www.regulations.gov* or e-mail. Send or deliver information identified as CBI to only the following address: Ms. Toni Jones, c/o OAQPS Document Control Officer (Room C404–02), U.S. EPA, Research Triangle Park, NC 27711, Attention Docket ID No. EPA–HQ–OAR–2003–0119. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD–ROM that you mail to EPA, mark the outside of the disk or CD–ROM as CBI and then identify electronically within the disk or CD–ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

If you have any questions about CBI or the procedures for claiming CBI, please consult the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

2. Tips for Preparing Your Comments

When submitting comments, remember to:

Identify the rulemaking by docket number and other identifying information (subject heading, **Federal Register** date and page number).

Follow directions. EPA may ask you to respond to specific questions or organize comments by referencing a Code of Federal Regulations (CFR) part or section number.

Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.

Describe any assumptions and provide any technical information and/or data that you used.

If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.

Provide specific examples to illustrate your concerns and suggest alternatives.

Explain your views as clearly as possible, avoiding the use of profanity or personal threats.

Make sure to submit your comments by the comment period deadline identified in the preceding section titled **DATES**.

3. Docket

The docket number for the proposed action regarding the CISWI NSPS (40 CFR part 60, subpart CCCC) and EG (40 CFR part 60, subpart DDDD) is Docket ID No. EPA–HQ–OAR–2003–0119.

4. Worldwide Web (WWW)

In addition to being available in the docket, an electronic copy of the proposed action is available on the WWW through the Technology Transfer Network Web site (TTN Web). Following signature, EPA posted a copy of the proposed action 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.

II. Background

A. What is the statutory authority for these proposed rules?

Section 129 of the Clean Air Act (CAA), entitled "Solid Waste Combustion," requires EPA to develop and adopt standards for solid waste incineration units pursuant to CAA Sections 111 and 129. Section 129(a)(1)(A) of the CAA requires EPA to establish performance standards, including emission limitations, for "solid waste incineration units" generally and, in particular, for "solid waste incineration units combusting commercial or industrial waste" (CAA Section 129(a)(1)(D)). Section 129 of the CAA defines "solid waste incineration unit" as "a distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments or the general public" (Section 129(g)(1)). Section 129 of the CAA also provides that "solid waste" shall have the meaning established by EPA pursuant to its authority under the Resource Conservation and Recovery Act (RCRA) (Section 129(g)(6)).

In *Natural Resources Defense Council* v. *EPA,* 489 F. 3d 1250 (DC Cir. 2007), the United States Court of Appeals for the District of Columbia Circuit (the Court) vacated the CISWI Definitions Rule, 70 FR 55568 (September 22, 2005), which EPA issued pursuant to CAA Section 129(a)(1)(D). In that rule, EPA defined the term "commercial or industrial solid waste incineration unit" to mean a combustion unit that combusts "commercial or industrial waste." The rule defined "commercial or industrial waste" to mean waste combusted at a unit that does not recover thermal energy from the combustion for a useful purpose. Under these definitions, only those units that combusted commercial or industrial waste and were not designed to, or did not operate to, recover thermal energy from the combustion, were subject to Section 129 standards. In vacating the rule, the Court found that the definitions in the CISWI Definitions Rule were inconsistent with the CAA. Specifically, the Court held that the term "solid waste incineration unit" in CAA Section 129(g)(1) "unambiguously include[s] among the incineration units subject to its standards any facility that combusts any commercial or industrial solid waste material at all—subject to the four statutory exceptions identified [in CAA Section 129(g)(1)]." *NRDC* v. *EPA,* 489 F.3d at 1257–58.

In response to the Court's vacatur of the CISWI Definitions rule, EPA initiated a rulemaking to define which non-hazardous secondary materials are "solid waste" for purposes of subtitle D (non-hazardous waste) of the RCRA when burned in a combustion unit. (See Advance Notice of Proposed Rulemaking (74 FR 41, January 2, 2009) soliciting comment on whether certain non-hazardous secondary materials used as alternative fuels or ingredients are solid wastes within the meaning of Subtitle D of the RCRA). That definition, in turn, would determine the applicability of CAA Section 129(a) to commercial and industrial combustion units.

In a parallel action, EPA is proposing a definition of solid waste pursuant to Subtitle D of RCRA. That action is relevant to this proceeding because some energy recovery units and kilns combust solid waste as alternative fuels. Such units that combust solid waste (as defined pursuant to Subtitle D of RCRA) would be subject to standards under the CAA Section 129 CISWI rules rather than under Section 112 rules applicable to boilers and kilns (*e.g.* cement kilns).

EPA recognizes that it has imperfect information on the exact nature of the non-hazardous secondary materials which energy recovery units and kilns combust, including, for example, information as to the provider(s) of the non-hazardous secondary materials, how much processing the non-hazardous secondary materials may have undergone, if any, and other issues potentially relevant in a determination as to whether non-hazardous secondary materials are solid waste, as the Administrator has proposed to define that term under RCRA. We nevertheless used the information currently available to EPA to determine which materials are solid waste, the burning of which would subject a unit to CAA Section 129, and which materials are not solid waste. Energy recovery units and kilns that are burning non-hazardous secondary materials that are not solid waste would be subject to the standard under CAA Section 112 that is applicable to such units. We based the standards in this proposed rule on the sources we determined would be subject to CISWI because they combust solid waste as defined in EPA's proposed Solid Waste Definition Rulemaking, which, as noted above, is being proposed in parallel with this proposed rule.

Sections 111(b) and 129(a) of the CAA (NSPS program) address emissions from new CISWI units and CAA Sections 111(d) and 129(b) (EG program) address emissions from existing CISWI units. The NSPS are directly enforceable Federal regulations and under CAA Section 129(f)(1) become effective six months after promulgation. Under CAA Section 129(f)(2), the EG become effective and enforceable no later than three years after EPA approves a state plan implementing the EG or five years after the date they are promulgated, whichever is earlier.

The CAA sets forth a two-stage approach to regulating emissions from solid waste incinerator units. The statute also provides EPA with substantial discretion to distinguish among classes, types and sizes of incinerator units within a category while setting standards. In the first stage of setting standards, CAA Section 129(a)(2) requires EPA to establish technology-based emission standards that reflect levels of control EPA determines are achievable for new and existing units, after considering costs, non-air quality health and environmental impacts and energy requirements associated with the implementation of the standards. Section 129(a)(5) of the CAA then directs EPA to review those standards and revise them as necessary every five years. In the second stage, CAA Section 129(h)(3) requires EPA to determine whether further revisions of the standards are necessary in order to provide an ample margin of safety to protect public health. *See, e.g., NRDC and LEAN* v. *EPA,* 529 F.3d 1077, 1079–80 (DC Cir. 2008) (addressing the similarly required two-stage approach under CAA Sections 112(d) and (f) and upholding EPA's implementation of same).

In setting forth the methodology EPA must use to establish the first-stage technology-based standards, CAA Section 129(a)(2) provides that standards "applicable to solid waste incineration units promulgated under Section 111 and this section shall reflect the maximum degree of reduction in emissions of [certain listed air pollutants] that the Administrator, taking into consideration the cost of achieving such emission reduction and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new and existing units in each category." This level of control is referred to as a maximum achievable control technology, or MACT standard.

In promulgating a MACT standard, EPA must first calculate the minimum stringency levels for new and existing solid waste incineration units in a category, generally based on levels of emissions control achieved or required to be achieved by the subject units. The minimum level of stringency is called the MACT "floor," and CAA Section 129(a)(2) sets forth differing levels of minimum stringency that EPA's standards must achieve, based on whether they regulate new and reconstructed sources, or existing sources. For new and reconstructed sources, CAA Section 129(a)(2) provides that the "degree of reduction in emissions that is deemed achievable * * * shall not be less stringent than the emissions control that is achieved in practice by the best controlled similar unit, as determined by the Administrator." Emissions standards for existing units may be less stringent than standards for new units, but "shall not be less stringent than the average emissions limitation achieved by the best performing 12 percent of units in the category."

The MACT floors form the least stringent regulatory option EPA may consider in the determination of MACT standards for a source category. EPA must also determine whether to control emissions "beyond-the-floor," after considering the costs, non-air quality health and environmental impacts and energy requirements of such more stringent control.

In general, all MACT analyses involve an assessment of the emissions from the best performing units in a source category. The assessment can be based on actual emissions data, knowledge of the air pollution control in place in combination with actual emissions data, or on state regulatory requirements that may enable EPA to estimate the actual performance of the regulated units. For each source category, the assessment involves a review of actual emissions data with an appropriate accounting for emissions variability. Other methods of estimating emissions can be used provided that the methods can be shown to provide reasonable estimates of the actual emissions performance of a source or sources. Where there is more than one method or technology to control emissions, the analysis may result in a series of potential regulations (called regulatory options), one of which is selected as MACT.

Each regulatory option EPA considers must be at least as stringent as the CAA's minimum stringency "floor" requirements. EPA must examine, but is not necessarily required to adopt, more stringent "beyond-the-floor" regulatory options to determine MACT. Unlike the floor minimum stringency requirements, EPA must consider various impacts of the more stringent regulatory options in determining whether MACT standards are to reflect "beyond-the-floor" requirements. If EPA concludes that the more stringent regulatory options have unreasonable impacts, EPA selects the "floor-based" regulatory option as MACT. But if EPA concludes that impacts associated with "beyond-the-floor" levels of control are acceptable in light of additional emissions reductions achieved, EPA selects those levels as MACT.

As stated earlier, the CAA requires that MACT for new sources be no less stringent than the emissions control achieved in practice by the best controlled similar unit. Under CAA Section 129(a)(2), EPA determines the best control currently in use for a given pollutant and establishes one potential regulatory option at the emission level achieved by that control with an appropriate accounting for emissions variability. More stringent potential beyond-the-floor regulatory options might reflect controls used on other sources that could be applied to the source category in question.

For existing sources, the CAA requires that MACT be no less stringent than the average emissions limitation achieved by the best performing 12 percent of units in a source category. EPA must determine some measure of the average emissions limitation achieved by the best performing 12 percent of units to form the floor regulatory option. More stringent beyond-the-floor regulatory options reflect other or additional controls capable of achieving better performance.

B. What are the primary sources of emissions and what are the emissions and current controls?

We are proposing to define a CISWI unit as any combustion unit at a commercial or industrial facility that is used to combust solid waste (as defined under the RCRA). *See* proposed 40 CFR 60.2265 (NSPS) and 60.2875 (EG). In this proposed rule, CISWI units include incinerators designed to discard waste materials; energy recovery units (*e.g.,* units that would be boilers if they did not burn solid waste) designed for heat recovery that combust solid waste materials; kilns and other industrial units that combust solid waste materials in the manufacture of a product; and burn-off ovens that combust residual materials off racks, parts, drums or hooks so that those items can be re-used in various production processes.

Combustion of solid waste causes the release of a wide array of air pollutants, some of which exist in the waste feed material and are released unchanged during combustion and some of which are generated as a result of the combustion process itself. These pollutants include particulate matter (PM); metals, including lead (Pb), cadmium (Cd) and mercury (Hg); toxic organics, including chlorinated dibenzo-p-dioxins/dibenzofurans (dioxin, furans); carbon monoxide (CO); nitrogen oxides (NO_X); and acid gases, including hydrogen chloride (HCl) and sulfur dioxide (SO_2).

Depending on the type of unit and currently applicable regulations or permit conditions, units may or may not be equipped with add-on control devices to control emissions. For example, most of the CISWI units that operate without heat recovery are not equipped with add-on controls. Those that are controlled use wet scrubbers, dry scrubbers, electrostatic precipitators (ESPs), or fabric filters, either alone or in combination. Some energy recovery units that combust solid waste are not equipped with add-on controls, but most are controlled with one or more of the following: cyclones or multi-clones, fabric filters, ESPs, wet scrubbers, venturi scrubbers, selective non-catalytic reduction (SNCR) or spray dryers. In addition to add-on controls, many CISWI units are controlled through the use of pollution prevention measures (*i.e.,* waste segregation) and good combustion control practices.

Waste segregation is the separation of certain components of the waste stream in order to reduce the amount of air pollution emissions associated with that waste when incinerated. The separated waste may include paper, cardboard, plastics, glass, batteries or metals. Separation of wastes can reduce the amount of chlorine- and metal-containing wastes being incinerated, which results in lower emissions of HCl, dioxin, furans, Hg, Cd and Pb.

Good combustion control practices include proper design, construction, operation and maintenance practices to destroy or prevent the formation of air pollutants prior to their release to the atmosphere. Test data for other types of combustion units indicate that as secondary chamber residence time and temperature increase, emissions decrease. Proper mixing of flue gases in the combustion chamber also promotes complete combustion. Combustion control is most effective in reducing dioxin, furans, other organic pollutants, PM, NO_X and CO emissions.

The 2000 CISWI standards and the proposed revised standards are designed to reduce air pollutants, including HCl, CO, Pb, Cd, Hg, PM, dioxin, furans (total, or 2,3,7,8-tetrachlorinated dibenzo-p-dioxin toxic equivalent (TEQ)), NO_X and SO_2, emitted from new and existing CISWI units. Units in the incinerator subcategory as defined in this proposed rule are currently subject to the 2000 CISWI standards and are already required to be in compliance with the NSPS or EG. The 2000 CISWI NSPS apply to CISWI units in the incinerator subcategory if construction of a unit began after November 30, 1999, or if modification of a unit began after June 1, 2001. The 2000 CISWI NSPS apply to units in the incinerator subcategory and became effective on June 1, 2001, and apply as of that date or at start-up of a CISWI incinerator unit, whichever is later. The 2000 CISWI EG apply to CISWI units in the incinerator subcategory if construction of a unit began on or before November 30, 1999, and compliance was required at the latest by December 2005. This proposed rule would establish revised standards for units in the incinerator subcategory and establish standards for the other four subcategories of CISWI units, and the emission limitations in the proposed revised NSPS and EG would apply at all times.

C. What is the relationship between this proposed rule and other combustion rules?

This proposed rule addresses the combustion of solid waste materials (as defined by the Administrator under the RCRA) in combustion units at commercial and industrial facilities. If an owner or operator of a CISWI unit ceases combusting solid waste, the affected unit would no longer be subject to this regulation under CAA Section 129. A rulemaking under CAA Section 112 is being proposed in a parallel action that is relevant to this action because it would apply to boilers and process heaters located at a major source that do not combust solid waste. EPA has also proposed, but not yet finalized, revised Section 112 National Emission Standards for Hazardous Air Pollutants (NESHAP) for cement kilns. *See* 74 FR 21136 (May 6, 2009) (proposing revisions to 40 CFR part 63, Subpart LLL). Cement kilns burning solid waste would be subject to this proposed rule, not the applicable NESHAP.

III. Summary of the Proposed Rule

A. Litigation and Proposed Remand Response

1. What is the history of the CISWI standards?

On December 1, 2000, EPA published a notice of final rulemaking establishing the NSPS and EG for CISWI units (60 FR 75338), hereinafter referred to as the 2000 CISWI rule. Thereafter, on August 17, 2001, EPA granted a request for reconsideration, pursuant to CAA Section 307(d)(7)(B) of the CAA, submitted on behalf of the National Wildlife Federation and the Louisiana Environmental Action Network, related to the definition of "commercial and industrial solid waste incineration unit" and "commercial or industrial waste" in EPA's CISWI rulemaking. In granting the petition for reconsideration, EPA agreed to undertake further notice and comment proceedings related to these definitions. In addition, on January 30, 2001, the Sierra Club filed a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit challenging EPA's final CISWI rule. On September 6, 2001, the Court entered an order granting EPA's motion for a voluntary remand of the CISWI rule, without vacatur. EPA's request for a voluntary remand of the final CISWI rule was taken to allow the EPA to address concerns related to EPA's procedures for establishing MACT floors for CISWI units in light of the Court's decision in *Cement Kiln Recycling Coalition* v. *EPA,* 255 F.3d 855 (DC Cir. 2001) (*Cement Kiln*). Neither EPA's granting of the petition for reconsideration, nor the Court's order granting a voluntary remand, stayed, vacated or otherwise influenced the effectiveness of the 2000 CISWI rule. Specifically, CAA Section 307(d)(7)(B) provides that "reconsideration shall not postpone the effectiveness of the rule," except that "[t]he effectiveness of the rule may be stayed during such reconsideration * * * by the Administrator or the court for a period not to exceed three months." Neither EPA nor the Court stayed the effectiveness of the final CISWI regulations in connection with the reconsideration petition. In addition, the District of Columbia Circuit granted EPA's motion for a remand without vacatur; therefore, the Court's remand order had no impact on the implementation of the 2000 CISWI rule.

On February 17, 2004, EPA published a proposed rule soliciting comments on the definitions of "solid waste," "commercial and industrial waste," and "commercial and industrial solid waste incineration unit." On September 22, 2005, EPA published in the **Federal Register** the final rule reflecting our decisions with respect to the CISWI Definitions Rule. The rule was challenged and, on June 8, 2007, the Court vacated and remanded the CISWI Definitions Rule. In vacating the rule, the Court found that CAA Section 129 unambiguously includes among the incineration units subject to its standards any facility that combusts any solid waste material at all, subject to four statutory exceptions. While the Court vacated the CISWI Definitions Rule, the 2000 CISWI rule remains in effect.

This action provides EPA's response to the voluntary remand of the 2000 CISWI rule and to the 2007 vacatur and remand of the CISWI Definitions Rule. In addition, this action addresses the five-year technology review that is required under CAA Section 129(a)(5).

2. What was EPA's MACT floor methodology in the 2000 CISWI rulemaking and how has the methodology been changed to respond to the voluntary remand?

In 2000, the methodology that EPA followed to establish the MACT floors included identification of a "MACT floor technology" and calculation of MACT floors using emission information from all units, not only the best performing units, that employed the MACT floor control technology. EPA recognized that this methodology was rejected by the Court in the *Cement Kiln* case, which was decided after EPA promulgated the 2000 CISWI standards. In light of the court decision, EPA requested a voluntary remand of the CISWI standards to re-evaluate those standards in light of the *Cement Kiln* decision in order to correct the methodology. See *Cement Kiln,* 255 F.3d 855 (Finding that EPA is permitted to account for variability by setting floors at a level that reasonably estimates the performance of the best controlled similar unit (or units) under the worst reasonably foreseeable circumstances, but not the worst foreseeable circumstances faced by any unit in the source category).

Accordingly, this action does not use the MACT floor methodology from 2000. Instead, we used emissions test data to calculate the MACT floors.[2] For existing units, we ranked individual CISWI units based on actual performance and established MACT floors based on the average of the best performing 12 percent of sources for each pollutant and subcategory, with an appropriate accounting for emissions variability. That is, the overall 3-run test average values for existing units for each pollutant were compiled and ranked to identify the best performing 12 percent of sources for each pollutant within each subcategory. Once identified, the individual test run data for these units were compiled and analyzed for variability.

As discussed in more detail in Section IV.C of this preamble, for the variability analysis, we first conducted a statistical analyses to determine whether the data used for the MACT floor calculation had a normal or log-normal distribution followed by calculation of the average and the 99th percent upper limit (UL).[3] The UL represents a value that 99 percent of the data in the MACT floor data population would fall below, and therefore accounts for variability between the individual test runs in the MACT floor data set. The UL is calculated by the following equation that is appropriate for small data sets:

UL = x + t(0.99,n) * s

Where:

x = average of the data.
t(0.99,n) = t-statistic.
n = number of data points in the population.
s = standard deviation.

The summary statistics and analyses are presented in the docket and further described in Section IV.C of this preamble. The calculated UL values for existing sources (which are based on emissions data from the best performing 12 percent of sources and evaluate variability) were selected as the proposed MACT floor emission limits for the nine regulated pollutants in each subcategory. This statistical approach is consistent with the methodology used in the October 6, 2009, Hospital/Medical/Infectious Waste Incinerators (HMIWI) rule (74 FR 51367). EPA conducted this MACT floor analysis for each pollutant for each of the five CISWI subcategories we are establishing in this proposed rule: Incinerators; energy recovery units; waste-burning kilns; burn-off ovens; and small, remote incinerators.

To determine the MACT floor for new sources, we used a UL calculation similar to that for existing sources, except the best performing unit's data within a subcategory was used to calculate the MACT floor emission limit for each pollutant instead of the average of the best performing 12 percent of units. In summary, the approach ranks individual CISWI units based on actual performance and establishes MACT floors based on the best performing source for each pollutant and subcategory, with an appropriate accounting of emissions variability. In other words, the UL was determined for the data set of individual test runs for the single best performing source for each regulated pollutant from each subcategory.

EPA also solicits comment on whether EPA should use an alternate statistical interval, the 99 percent upper prediction limit (UPL) instead of the UL. In general, a prediction interval (*e.g.,* a UPL) is useful in determining what future values are likely to be, based upon present or past background samples taken. The 99 percent UPL represents the value that one can expect the mean of future 3-run performance tests from the best-performing 12 percent of sources to fall below with 99 percent confidence, based upon the results of the independent sample of observations from the same best performing sources. The 99 percent UPL value based on the test run data for those units in the best-performing 12 percent could be calculated using one of the following spreadsheet equations depending on the distribution of data:

Normal distribution: 99% UPL = AVERAGE(Test Runs in Top 12%) + [STDEV(Test Runs in Top 12%) × TINV(2 × probability, n-1 degrees of freedom) × SQRT((1/n) + (1/m))], for a one-tailed upper prediction limit with a probability of 0.01, sample size of n and number of runs whose average will be reported to EPA for compliance of m = 3.

Lognormal distribution: 99% UPL = EXP{AVERAGE(Natural Log Values of Test Runs in Top 12%) + [STDEV(Natural Log Values of Test Runs in Top 12%) × TINV(2 × probability, n-1 degrees of freedom) × SQRT((1/n) + (1/m))]}, for a one-tailed upper prediction limit with a probability of 0.01, sample size of n and number of runs whose average will be reported to EPA for compliance of m = 3.

In addition to proposing standards for the nine pollutants discussed above, we are also proposing opacity standards for new and existing sources in the five subcategories as discussed below.

Test method measurement imprecision can also be a component of data variability. At very low emissions levels as encountered in the data used to support this rule, the inherent imprecision in the pollutant measurement method has a large influence on the reliability of the data underlying the regulatory floor or beyond-the-floor emissions limit. Of particular concern are those data that are reported near or below a test method's pollutant detection capability. In our guidance for reporting pollutant emissions used to support this rule, we specified the criteria for determining test-specific method detection levels. Those criteria insure that there is about a 1 percent probability of an error in deciding that the pollutant measured at the method detection level is present, when in fact, it was absent. Such a probability is also called a false positive or the alpha, Type I, error. Another view of this probability is that one is 99 percent certain of the presence of the pollutant measured at the method detection level. Because of matrix effects, laboratory techniques, sample size and other factors, method detection levels normally vary from test to test. We requested sources to identify (*i.e.,* flag) data which were measured below the method detection level and to report those values as equal to the test-specific method detection level.

Variability of data due to measurement imprecision is inherently and reasonably addressed in calculating the floor or beyond-the-floor emissions limit when the database represents multiple tests for which all of the data are measured significantly above the method detection level. That is less true

[2] EPA did receive some additional emissions data earlier this year, but due to the court-ordered deadline, we did not have time to review and evaluate that data. We intend to review the data submitted earlier this year from a quality assurance and completeness perspective and incorporate that data into the final standards, as appropriate. To the extent EPA receives additional emissions data during the comment period, EPA will assess that data as it develops the final emission standards.

[3] The procedure is the same as used for the Hospital/Medical/Infectious Waste Incinerators (HMIWI) rule (74 FR 51367). While the HMIWI preamble referred to this measure as the upper confidence limit (UCL), it used the same equation. In this proposal, we refer to the measure as the UL, which is a more appropriate statistical terminology for this calculation.

when the database includes emissions occurring below method detection capabilities and are reported as the method detection level values. The database is then truncated at the lower end of the measurement range (*i.e.,* no values reported below the method detection level) and we believe that a floor or beyond-the-floor emissions limit based on a truncated database or otherwise including values at or near the method detection level may not adequately account for data measurement variability. We did not adjust the calculated floor for the data used for this proposal; although, we believe that accounting for measurement imprecision should be an important consideration in calculating the floor or beyond-the-floor emissions limit. We request comment on approaches suitable to account for measurement variability in establishing the floor or beyond-the-floor emissions limit when based on measurements at or near the method detection level.

As noted above, the confidence level that a value measured at the detection level is greater than zero is about 99 percent. The expected measurement imprecision for an emissions value occurring at or near the method detection level is about 40 to 50 percent. Pollutant measurement imprecision decreases to a consistent relative 10 to 15 percent for values measured at a level about three times the method detection level.[4] One approach that we believe could be applied to account for measurement variability would require defining a method detection level that is representative of the data used in establishing the floor or beyond-the-floor emissions limits and also minimizes the influence of an outlier test-specific method detection level value. The first step in this approach would be to identify the highest test-specific method detection level reported in a data set that is also equal to or less than the floor or beyond-the-floor emissions limit calculated for the data set. This approach has the advantage of relying on the data collected to develop the floor or beyond-the-floor emissions limit while to some degree minimizing the effect of a test(s) with an inordinately high method detection level (*e.g.,* the sample volume was too small, the laboratory technique was insufficiently sensitive or the procedure for determining the detection level was other than that specified).

The second step would be to determine the value equal to three times the representative method detection level and compare it to the calculated floor or beyond-the-floor emissions limit. If three times the representative method detection level was less than the calculated floor or beyond-the-floor emissions limit, we would conclude that measurement variability is adequately addressed and we would not adjust the calculated floor or beyond-the-floor emissions limit. If, on the other hand, the value equal to three times the representative method detection level was greater than the calculated floor or beyond-the-floor emissions limit, we would conclude that the calculated floor or beyond-the-floor emissions limit does not account entirely for measurement variability. We then would use the value equal to three times the method detection level in place of the calculated floor or beyond-the-floor emissions limit to ensure that the floor or beyond-the-floor emissions limit accounts for measurement variability. We request comment on this approach.

As stated above, EPA's solid waste definition rule proposes to define which non-hazardous secondary materials that are used as fuels or ingredients in combustion units are solid wastes under Subtitle D of RCRA. In addition to the primary proposed approach set forth in the Solid Waste Definition rule, the rule solicits comments on an alternative approach for determining which secondary materials are solid waste under Subtitle D of RCRA, when combusted. The MACT analysis discussed above considers only those commercial or industrial units that are CISWI units (*i.e.,* that are units that combust "solid waste" as that term is defined by the Administrator under RCRA). Based on the MACT analysis described above, we calculated emission standards under both the primary proposed approach and the alternative approach identified in the proposed Solid Waste Definition rule. The only two subcategories for which the number of units changed under the alternative approach set forth in the solid waste definition rule were the energy recovery units and waste-burning kilns subcategories. Because the number of units in these two subcategories is different under the alternative approach, the NSPS and EG did change. Based on the information available to EPA, the number of units in the other subcategories (*i.e.,* incinerators, burn-off ovens and small, remote incinerators) remained the same under both the proposed and alternative approaches, and the NSPS and EG, therefore, did not change under the alternative approach.

Table 1 of this preamble shows a comparison of the existing source MACT limits from the 2000 CISWI rule and those developed for the five subcategories in this action based on the proposed definition of solid waste. EPA did not establish subcategories in the 2000 CISWI rule and, for that reason, a direct comparison with the standards proposed today with the 2000 standards is only possible for the incinerators subcategory. As stated above, we are proposing to subcategorize CISWI units for reasons described in Section IV.B of this preamble. The five subcategories are:

- Incinerators, which are those units that are currently regulated by the 2000 CISWI rule, are units that are used to dispose of solid waste materials.
- Energy recovery units that combust solid waste materials as a percentage of their fuel mixture. Energy recovery units include units that would be boilers or process heaters if they did not combust solid waste.
- Waste-burning kilns means a kiln that is heated, in whole or in part, by combusting solid waste (as that term is defined by the Administrator under RCRA).
- Burn-off ovens that are used to clean residual solid waste materials off of various metal parts which are then reused.
- Small, remote incinerators that combust less than one ton of waste per day and are farther than 50 miles driving distance to the closest municipal solid waste (MSW) landfill.

The proposed MACT floor emission limits for existing sources in each subcategory are shown in Table 1 of this preamble.

[4] American Society of Mechanical Engineers, *Reference Method Accuracy and Precision (ReMAP): Phase 1, Precision of Manual Stack Emission Measurements,* CRTD Vol. 60, February 2001.

TABLE 1—COMPARISON OF EXISTING SOURCE MACT FLOOR LIMITS FOR 2000 CISWI RULE AND THE PROPOSED MACT FLOOR LIMITS

[Based on the primary proposed definition of solid waste in the Solid Waste Definition Rule]

Pollutant (units) [1]	Incinerators (2000 CISWI limit)	Proposed CISWI subcategories				
		Incinerators	Energy recovery units	Waste-burning kilns	Burn-off ovens	Small, remote incinerators
HCl (ppmv)	62	29	1.5	1.5	130	150
CO (ppmv)	157	2.2	150	710	80	78
Pb (mg/dscm)	0.04	0.0026	0.002	0.0027	0.041	1.4
Cd (mg/dscm)	0.004	0.0013	0.00041	0.0003	0.0045	0.26
Hg (mg/dscm)	0.47	0.0028	0.00096	0.024	0.014	0.0029
PM, filterable (mg/dscm)	70	13	9.2	60	33	240
dioxin, furans, total (ng/dscm)	(no limit)	0.031	0.75	2.1	310	1,600
dioxin, furans, TEQ (ng/dscm)	0.41	0.0025	0.059	0.17	25	130
NO_X (ppmv)	388	34	130	1,100	120	210
SO_2 (ppmv)	20	2.5	4.1	410	11	44
Opacity (%)	10	1	1	4	2	13

[1] All emission limits are measured at 7% oxygen.
ppmv = parts per million by volume.
mg/dscm = milligrams per dry standard cubic meter.
ng/dscm = nanograms per dry standard cubic meter.

After establishing the MACT floors for each subcategory and pollutant, EPA also assessed options more stringent than the MACT floors. For reasons described in the rationale section (IV) of the preamble, we are not proposing limits more stringent than the MACT floor. However, we are proposing to amend the requirements to qualify for reduced testing and, thereby, we are providing an incentive for owners or operators to optimize a unit's carbon injection system and other operating parameters to further reduce both mercury and dioxin/furan emissions.

As stated above, the approach for new sources was similar to that used with the existing sources, except the best performing unit's data within a subcategory was used to calculate the MACT floor emission limit instead of the average of the best performing 12 percent of units. In summary, the approach ranks individual CISWI units based on actual performance and establishes MACT floors based on the best performing source for each pollutant and subcategory, with an appropriate accounting for emissions variability. The new source MACT floor emission limits for each CISWI subcategory are shown in Table 2 of this preamble.

TABLE 2—COMPARISON OF NEW SOURCE MACT FLOOR LIMITS FOR 2000 CISWI RULE AND THE PROPOSED MACT FLOOR LIMITS

[Based on the primary definition of solid waste in the Solid Waste Definition Rule]

Pollutant (units) [1]	Incinerators (2000 limit)	Proposed CISWI subcategories				
		Incinerators	Energy recovery units	Waste-burning kilns	Burn-off ovens	Small, remote incinerators
HCl (ppmv)	62	0.074	0.17	1.5	18	150
CO (ppmv)	157	1.4	3.0	36	74	4.0
Pb (mg/dscm)	0.04	0.0013	0.0012	0.00078	0.029	1.4
Cd (mg/dscm)	0.004	0.00066	0.00012	0.00030	0.0032	0.057
Hg (mg/dscm)	0.47	0.00013	0.00013	0.024	0.0033	0.0013
PM, filterable (mg/dscm)	70	0.0077	4.4	1.8	28	240
dioxin, furans, total (ng/dscm)	(no limit)	0.0093	0.034	0.00035	0.011	1,200
dioxin, furans, TEQ (ng/dscm)	0.41	0.00073	0.0027	0.000028	0.00086	94
NO_X (ppmv)	388	19	75	140	16	210
SO_2 (ppmv)	20	1.5	4.1	3.6	1.5	43
Opacity (%)	10	1	1	1	2	13

[1] All emission limits are measured at 7 percent oxygen.

3. How is the solid waste definition addressed in this proposed rule?

EPA is proposing to define the non-hazardous secondary materials that are solid waste in a parallel notice under RCRA and the RCRA proposal also identifies an "alternative approach" for consideration and comment. The concurrently proposed RCRA solid waste definition is integral in defining the CISWI source category. As stated above, the emission limits presented in Tables 1 and 2 of this preamble are based on subcategories established considering sources that are CISWI units under the "proposed approach" for defining when non-hazardous secondary materials are solid waste, as discussed in a parallel proposal under RCRA. As stated above, the "alternative approach" identified for consideration and comment in the RCRA notice would result in a different population of units being covered by the standards for two of the CISWI subcategories. We calculated MACT floors using emission rates for units that would be CISWI units under the "alternative approach" (*i.e.,* for units in the energy recovery units and waste-burning kilns subcategories) and the MACT standard setting procedures previously described.

Table 3 of this preamble reflects the potential MACT floor limits for the subcategories (*i.e.,* energy recovery unit and waste-burning kiln) that would be affected considering the "alternative approach" for defining solid waste. The MACT floor limits for the remaining three subcategories would not be impacted by the "alternative approach" and are reflected in Tables 1 and 2 of this preamble.

TABLE 3—POTENTIAL NEW AND EXISTING MACT FLOOR LIMITS FOR THE ENERGY RECOVERY UNITS AND WASTE-BURNING KILN SUBCATEGORIES USING THE "ALTERNATIVE APPROACH" UNDER CONSIDERATION AND COMMENT IN THE CONCURRENTLY PROPOSED RCRA RULE

Pollutant (units) [1]	Proposed MACT floor for existing units		Proposed MACT floor for new units	
	Energy recovery units	Waste-burning kilns	Energy recovery units	Waste-burning kilns
HCl (ppmv)	30	3.6	0.036	3.6
CO (ppmv)	290	760	3	36
Pb (mg/dscm)	0.15	0.0061	0.000023	0.00078
Cd (mg/dscm)	0.013	0.00070	0.0000011	0.00070
Hg (mg/dscm)	0.0085	0.03	0.00013	0.00081
PM, filterable (mg/dscm)	69	71	3.4	1.8
dioxin, furans, total (ng/dscm)	95	2.2	0.0017	0.00035
dioxin, furans, TEQ (ng/dscm)	7.5	0.18	0.00014	0.000028
NO_X (ppmv)	440	1,100	63	140
SO_2 (ppmv)	1,500	410	0.040	3.6
Opacity (%)	1	4	1	1

[1] All emission limits are measured at 7 percent oxygen.

B. Proposed CAA Section 129(a)(5) Five-Year Review Response

Section 129(a)(5) of the CAA requires EPA to conduct a review of the standards at five-year intervals and, in accordance with CAA Sections 129 and 111, revise the standards. We do not interpret CAA Section 129(a)(5), together with CAA Section 111, as requiring EPA to recalculate MACT floors in connection with this periodic review. See, *e.g.,* 71 FR 27324, 27327–28 (May 10, 2006) "Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Large Municipal Waste Combustors; Final Rule"; see also, *NRDC and LEAN* v. *EPA,* 529 F.3d 1077, 1083–84 (D.C. Cir. 2008) (upholding EPA's interpretation that the periodic review requirement in CAA Section 112(d)(6) does not impose an obligation to recalculate MACT floors).

Rather, in conducting such periodic reviews, EPA attempts to assess the performance of and variability associated with control measures affecting emissions performance at sources in the subject source category (including the installed emissions control equipment), along with recent developments in practices, processes and control technologies, and determines whether it is appropriate to revise the standards. This is the same general approach taken by EPA in periodically reviewing CAA Section 111 standards, as CAA Section 111 contains a similar review and revise provision. Specifically, CAA Section 111(b)(1)(B) requires EPA, except in specified circumstances, to review NSPS promulgated under CAA Section 111 every eight years and to revise the standards if EPA determines that it is "appropriate" to do so, 42 U.S.C. 7411(b)(1)(B). In light of the explicit reference in CAA Section 129(a)(5) to Section 111, which contains direct guidance on how to review and revise standards previously promulgated, EPA reasonably interprets CAA Section 129(a)(5) to provide that EPA must similarly review and, if appropriate, revise CAA Section 129 standards.

Section 129 provides guidance on the criteria to be used in determining whether it is appropriate to revise a CAA Section 129 standard. Section 129(a)(3) states that standards under CAA Sections 111 and 129 "shall be based on methods and technologies for removal or destruction of pollutants before, during and after combustion." It can be reasonably inferred from the reference to "technologies" that EPA is to consider advances in technology, both as to their effectiveness and their costs, as well as the availability of new technologies, in determining whether it is "appropriate" to revise a CAA Section 129 standard. This inference is further supported by the fact that the standards under review are based, in part, on an assessment of the performance of control technologies currently being used by sources in a category or subcategory.

This approach is also consistent with the approach used in establishing and updating NSPS under CAA Section 111. Consistent with the definition of "standard of performance" in CAA Section 111(a)(1), standards of performance promulgated under CAA Section 111 are based on "the best system of emission reductions" which generally equates to some type of control technology. Where EPA determines that it is "appropriate" to revise CAA Section 111 standards, CAA Section 111(b)(1)(B) directs that this be done "following the procedure required by this subsection for promulgation of such standards." In updating CAA Section 111 standards in accordance with CAA Section 111(b)(1)(B), EPA has consistently taken the approach of evaluating advances in existing control technologies, both as to performance and cost, as well as the availability of new technologies and then, on the basis of this evaluation, determined whether it is appropriate to revise the standard. *See,* for example, 71 FR 9866 (Feb. 27, 2006) (updating the boilers NSPS) and 71 FR 38482 (July 6, 2006) (updating the stationary combustion turbines NSPS). In these reviews, EPA takes into account, among other things, the currently installed equipment and its performance and operational variability. As appropriate, we also consider new technologies and control measures that have been demonstrated to reliably control emissions from the source category.

The approach is similar to the one that Congress spelled out in CAA Section 112(d)(6), which is also entitled

"Review and revision." Section 112(d)(6) directs EPA to every eight years "review, and revise as necessary (taking into account developments in practices, processes and control technologies)" emission standards promulgated pursuant to CAA Section 112. There are a number of significant similarities between what is required under CAA Section 129, which addresses emissions of hazardous air pollutants (HAP) and other pollutants from solid waste incineration units, and CAA Section 112, which addresses HAP emissions generally. For example, under both CAA Section 112(d)(3) and CAA Section 129(a)(2) initial standards applicable to existing sources "shall not be less stringent than the average emissions limitation achieved by the best performing 12 percent of units in the category." Also, as stated above, both sections require that standards be reviewed at specified intervals of time. Finally, both sections contain a provision addressing "residual risk" (CAA Sections 112(f) and 129(h)(3)). As a result, EPA believes that CAA Section 112(d)(6) is relevant in ascertaining Congress' intent regarding how EPA is to proceed in implementing CAA Section 129(a)(5).

Like its counterpart CAA Section 112(d)(6), Section 129(a)(5) does not state that EPA must conduct a MACT floor analysis every five years when reviewing standards promulgated under CAA Sections 129(a)(2) and 111. Had Congress intended EPA to conduct a new floor analysis every five years, it would have said so expressly by directly incorporating such requirements into CAA Section 129(a)(5), for example, by referring directly to CAA Section 129(a)(2), rather than just to "this section" and CAA Section 111. It did not do so, however, and, in fact, CAA Section 129 encompasses more than just MACT standards under CAA Section 129(a)(2)—it also includes risk-based standards under CAA Section 129(h)(3), which are not determined by an additional MACT analysis. Reading CAA Section 129(a)(5) to require recalculation of the MACT floor would be both inconsistent with Congress' express direction that EPA should revise CAA Section 129 standards in accordance with CAA Section 111, which plainly provides that such revision should occur only if we determine that it is "appropriate" to do so. It would also result in effectively reading the reference to CAA Section 111 out of the CAA, a circumstance that Congress could not have intended. Required recalculation of floors would completely eviscerate EPA's ability to base revisions to CAA Section 129 standards on a determination that it is "appropriate" to revise such standards, as EPA's only discretion would be in deciding whether to establish a standard that is more stringent than the recalculated floor. EPA believes that depriving the Agency of any meaningful discretion in this manner is at odds with what Congress intended.

Further, required recalculation of floors would have the inexorable effect of driving existing sources to the level of performance exhibited by new sources on a five-year cycle, a result that is unprecedented and that should not be presumed to have been intended by Congress in the absence of a clear statement to that effect. There is no such clear statement. It is reasonable to assume that if the floor must be recalculated on a five-year cycle, some, if not most or all, of the sources that form the basis for the floor calculation, will be sources that were previously subject to standards applicable to new sources. As a result, over time, existing sources which had not made any changes in their operations, would eventually be subject to essentially the same level of regulation as new sources. Such a result would be unprecedented, particularly in the context of a standard that is established under both CAA Sections 129 and 111. Under CAA Section 111, an existing source only becomes a new source and thus subject to a new source standard when it is either modified (CAA Section 111(a)(2)) or reconstructed (40 CFR 60.15). Given this context, it is not reasonable to assume that Congress intended for existing sources subject to CAA Section 129 standards to be treated as new sources over time where their circumstances have not changed.

We believe that a reasonable interpretation of CAA Section 129(a)(5) is that Congress preserved EPA's discretion in reviewing CAA Section 129 standards to revise them when the EPA determines it is "appropriate" to do so and that the Court's recent ruling regarding CAA Section 112(d)(6) supports this view (*see NRDC and LEAN* v. *EPA,* 529 F.3d 1077, 1084 (DC Cir. 2008). In that case, petitioners had "argued that EPA was obliged to completely recalculate the maximum achievable control technology—in other words, to start from scratch." *NRDC and LEAN,* 529 F.3d at 1084. The Court held: "We do not think the words 'review, and revise as necessary' can be construed reasonably as imposing any such obligation." The Court's ruling in *NRDC and LEAN* is consistent with our interpretation of CAA Section 129(a)(5) as providing a broad range of discretion in terms of whether to revise MACT standards adopted under CAA Sections 129(a)(2) and 111.

C. EPA's Approach in Conducting the Five-Year Review

This action responds to the vacatur and remand of the CISWI Definition Rule and the voluntary remand of the 2000 CISWI NSPS and EG, and, in this response, EPA is proposing new standards based on a MACT methodology that is consistent with the CAA and District of Columbia Circuit Court precedent. The MACT levels proposed herein reflect floor levels determined by actual current emissions data from CISWI units, and, therefore, reflect the current performance of the best performing unit or units that will be subject to the CISWI standards. Consequently, we believe that our obligation to conduct a five-year review based on implementation of the 2000 CISWI rule will also be fulfilled upon finalization of the CISWI standards. Our conclusion is supported by the fact that the revised MACT standards included in this proposed remand response are based on the available performance data for the currently operating CISWI units, including those units that are subject to the 2000 CISWI rule and those units that will be subject to the CISWI standards for the first time based on the proposed Solid Waste Definition rule under RCRA. In establishing MACT floors based on currently available emissions information, we address the technology review's goals of assessing the performance efficiency of the installed equipment and ensuring that the emission limits reflect the performance of the technologies required by the MACT standards. In addition, in establishing the proposed standards, we considered whether new technologies and processes and improvements in practices have been demonstrated at sources subject to the 2000 CISWI rule and at sources that will be subject to these proposed standards for the first time based on the proposed definition of solid waste. Accordingly, the remand response in this proposed action fulfills EPA's obligations regarding the five-year review of the CISWI standards.

D. Other Proposed Amendments

This proposed action makes additional changes to the 2000 CISWI rule, including changes to the units excluded from regulation under the 2000 CISWI rule; the removal of the exemption for periods of startup, shutdown and malfunction; changes to the testing, monitoring and reporting requirements; and changes to the electronic data submittal requirements. A summary of these changes follows.

1. Definitions and Units Excluded From Regulation

We are revising the definition of CISWI unit to reflect the Court decision that all units burning solid waste as defined under RCRA are to be covered by regulation under CAA Section 129. We are also adding a definition of "solid waste incineration unit" and removing the definition of "commercial and industrial waste". We also included for the first time definitions of the five subcategories of CISWI units that will be regulated under the proposed rules.

The 2000 CISWI rule excluded from regulation combustion units at commercial or industrial facilities that recovered energy for a useful purpose, and also excluded multiple other types of units that may combust solid waste including: Pathological waste incinerators; agricultural waste incinerators; incinerators regulated by the CAA Section 129 municipal waste combustor (MWC) or HMIWI standards; incinerators with a capacity less than 35 tons per day that combust more than 30 percent MSW; qualifying small power producers; qualifying cogeneration units; materials recovery units; air curtain incinerators combusting "clean wood" waste; cyclonic barrel burners; rack, part and drum reclamation units; cement kilns; sewage sludge incinerators (SSI); chemical recovery units; and laboratory analysis units.

Qualifying small power producers, qualifying cogeneration units and metals recovery units are expressly exempt from coverage pursuant to CAA exclusions from the definition of "solid waste incineration unit" set forth in Section 129(g)(1). Units that are required to have a permit under section 3005 or the Solid Waste Disposal Act (*i.e.,* hazardous waste combustion units) are also exempt from Section 129 rules per CAA Section 129(g)(1). Air curtain incinerators at commercial or industrial facilities combusting "clean wood" waste are also excluded from the definition of solid waste incineration unit set forth in CAA Section 129(g)(1), but that section provides that such units must comply with opacity limits.

Solid waste incineration units that are included within the scope of other CAA Section 129 categories include MWCs, pathological waste incinerators (EPA intends to regulate these units under other solid waste incineration (OSWI) standards), SSI (EPA currently intends to issue a regulation setting emission standards for these units by December 16, 2010), and HMIWI, and these solid waste incineration units will remain exempt from the CISWI standards. All other solid waste incineration units at commercial and industrial facilities would be subject to the proposed CISWI standards. Accordingly, the proposed revisions to the CISWI rules would remove the exemptions for: Agricultural waste incinerators; cyclonic barrel burners; cement kilns; rack, part and drum reclamation units (*i.e.* burn-off ovens); chemical recovery units; and laboratory analysis units. As stated above, we are proposing to create subcategories for waste-burning kilns, energy recovery units and burn-off ovens and subject them to this proposed rule in light of the CISWI Definitions Rule vacatur. We note that other Section 129 standards may contain an exemption for cement kilns. Those exemptions do not excuse waste burning kilns from compliance with these proposed standards. As those other Section 129 rules are amended, we will clarify that cement kilns that meet the definition of waste-burning kiln and other CISWI units that may be expressly exempt from those standards are subject to CISWI standards if they combust solid waste.

CISWI units burning agricultural materials that meet the definition of solid waste would be part of the appropriate standards under this proposed rule. If the unit recovers energy, it would be subject to the CISWI energy recovery unit subcategory, and our inventory includes one such unit. If the unit does not recover energy, it would be included in either the incinerators subcategory or the small, remote incinerators subcategory. We are not aware of any circumstances in which waste-burning kilns or burn off ovens would combust agricultural materials. Cyclonic burn barrels, which may be used to combust agricultural materials, would be included in either the incinerators subcategory or the small remote incinerators subcategory.

2. Performance Testing and Monitoring Amendments

The proposed amendments would require all CISWI units to demonstrate initial compliance with the revised emission limits. The proposed amendments would require, for existing CISWI units, annual inspections of scrubbers, fabric filters and other air pollution control devices that are used to meet the emission limits. In addition, a Method 22 of appendix A–7 visible emissions test of the ash handling operations is required to be conducted during the annual compliance test for all subcategories except waste-burning kilns, which do not have ash handling systems. Furthermore, for any existing CISWI unit that operates a fabric filter air pollution control device, we are proposing that a bag leak detection system be installed to monitor the device. The proposed amendments continue to require parametric monitoring of all other add-on air pollution control devices, such as wet scrubbers and activated carbon injection. CISWI units that install SNCR technology to reduce NO_X emissions would be required to monitor the reagent (*e.g.,* ammonia or urea) injection rate and secondary chamber temperature (if applicable to the CISWI unit).

The proposed amendments would also require subcategory-specific monitoring requirements in addition to the aforementioned inspection, bag leak detection and parametric monitoring requirements applicable to all CISWI units. Existing incinerators, burn-off ovens and small, remote incinerators would have annual emissions testing for opacity, HCl and PM. Existing kilns would monitor Hg emissions using a Hg continuous emissions monitoring systems (CEMS) and would perform annual testing for CO, NO_X, SO_2, PM, HCl and opacity. Existing energy recovery units would monitor CO using a CO CEMS. We seek comment on the extent to which existing units in subcategories other than energy recovery should be required to use CO CEMS. Annual performance testing for CO, NO_X, SO_2, PM, HCl, dioxins/furans and opacity is also required for these units. The proposed amendments provide reduced annual testing requirements for PM, HCl and opacity when testing results are shown to be well below the limits. If the energy recovery unit has a design capacity less than 250 MMBtu/hr and is not equipped with a wet scrubber control device, then a continuous opacity monitor would be required or, as an alternative, a PM CEMS could be employed (see below). If the energy recovery unit has a design capacity greater than 250 MMBtu/hr, the proposed requirements would require monitoring of PM emissions using a PM CEMS. We seek comment on the extent to which subcategories other than energy recovery units should be required to use PM CEMS.

For new CISWI units, the proposed amendments would require the same monitoring requirements proposed for existing units, but would also require CO CEMS for all subcategories.

For all subcategories of existing CISWI units, use of CO CEMS would be an approved alternative and specific language with requirements for CO CEMS is included in the proposed amendments. For new and existing

CISWI units, use of PM, NO_X, SO_2, HCl, multi-metals and Hg CEMS and integrated sorbent trap Hg monitoring and dioxin monitoring (continuous sampling with periodic sample analysis) also would be approved alternatives and specific language for those alternatives is included in the proposed amendments.

3. Electronic Data Submittal

The EPA must have performance test data to conduct effective reviews of CAA Section 112 and 129 standards, as well as for many other purposes including compliance determinations, emissions factor development and annual emissions rate determinations. In conducting these required reviews, we have found it ineffective and time consuming not only for us but also for regulatory agencies and source owners and operators to locate, collect and submit emissions test data because of varied locations for data storage and varied data storage methods. One improvement that has occurred in recent years is the availability of stack test reports in electronic format as a replacement for cumbersome paper copies.

In this action, we are taking a step to improve data accessibility. Owners and operators of CISWI units will be required to submit to an EPA electronic database an electronic copy of reports of certain performance tests required under this rule. Data entry will be through an electronic emissions test report structure called the Electronic Reporting Tool (ERT) that will be used by the staff as part of the emissions testing project. The ERT was developed with input from stack testing companies who generally collect and compile performance test data electronically and offices within state and local agencies which perform field test assessments. The ERT is currently available, and access to direct data submittal to EPA's electronic emissions database (WebFIRE) will become available by December 31, 2011.

The requirement to submit source test data electronically to EPA will not require any additional performance testing and will apply to those performance tests conducted using test methods that are supported by ERT. The ERT contains a specific electronic data entry form for most of the commonly used EPA reference methods. The Web site listed below contains a listing of the pollutants and test methods supported by ERT. In addition, when a facility submits performance test data to WebFIRE, there will be no additional requirements for emissions test data compilation. Moreover, we believe industry will benefit from development of improved emissions factors, fewer follow-up information requests and better regulation development as discussed below. The information to be reported is already required for the existing test methods and is necessary to evaluate the conformance to the test method.

One major advantage of submitting source test data through the ERT is that it provides a standardized method to compile and store much of the documentation required to be reported by this rule while clearly stating what testing information we require. Another important benefit of submitting these data to EPA at the time the source test is conducted is that it will substantially reduce the effort involved in data collection activities in the future. Specifically, because EPA would already have data for this source category as a result of the electronic reporting provisions described here, there would likely be fewer or less substantial data collection requests (*e.g.,* CAA Section 114 letters) in the future for this source category. This results in a reduced burden on both affected facilities (in terms of reduced manpower to respond to data collection requests) and EPA (in terms of preparing and distributing data collection requests).

State/local/tribal agencies may also benefit in that their review may be more streamlined and accurate as the states will not have to re-enter the data to assess the calculations and verify the data entry. Finally, another benefit of submitting these data to WebFIRE electronically is that these data will improve greatly the overall quality of the existing and new emissions factors by supplementing the pool of emissions test data upon which the emissions factor is based and by ensuring that data are more representative of current industry operational procedures. A common complaint we hear from industry and regulators is that emissions factors are outdated or not representative of a particular source category. Receiving and incorporating data for most performance tests will ensure that emissions factors, when updated, represent accurately the most current operational practices. In summary, receiving test data already collected for other purposes and using them in the emissions factors development program will save industry, state/local/tribal agencies and EPA time and money and work to improve the quality of emissions inventories and related regulatory decisions.

As mentioned earlier, the electronic database that will be used is EPA's WebFIRE, which is a Web site accessible through EPA's TTN. The WebFIRE Web site was constructed to store emissions test data for use in developing emissions factors. A description of the WebFIRE database can be found at *http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main.* The ERT will be able to transmit the electronic report through EPA's Central Data Exchange (CDX) network for storage in the WebFIRE database. Although ERT is not the only electronic interface that can be used to submit source test data to the CDX for entry into WebFIRE, it makes submittal of data very straightforward and easy. A description of the ERT can be found at *http://www.epa.gov/ttn/chief/ert/ert_tool.html.*

4. Changes to Startup, Shutdown and Malfunction Provisions

The 2000 CISWI standards did not apply during periods of startup, shutdown and malfunction. The proposed rule would revise the 2000 CISWI rule such that the standards would apply at all times, including during startup, shutdown or malfunction events. As further explained in Section IV.E.4 of this preamble, the revision is the result of a court decision that invalidated certain regulations related to startup, shutdown and malfunction in the General Provisions of 40 CFR part 63. The full rationale for these decisions is presented in Section IV.E.3 of this preamble.

E. Proposed State Plan Implementation Schedule for Existing CISWI

Under the proposed amendments to the EG and consistent with CAA Section 129, revised state plans containing the revised existing source emission limits and other requirements in the proposed amendments would be due within one year after promulgation of the amendments. That is, states would have to submit revised plans to EPA one year after the date on which EPA promulgates revised standards.

The proposed amendments to the EG would then allow existing CISWI to demonstrate compliance with the amended standards as expeditiously as practicable after approval of a state plan, but no later than three years from the date of approval of a state plan or five years after promulgation of the revised standards, whichever is earlier. Consistent with CAA Section 129, EPA expects states to require compliance as expeditiously as practicable. However, because we believe that many CISWI units will find it necessary to retrofit existing emission control equipment and/or install additional emission control equipment in order to meet the proposed revised limits, EPA anticipates that states may choose to provide the three year compliance period allowed by CAA Section 129(f)(2).

In revising the standards in a state plan, a state would have two options. First, it could include both the 2000 CISWI standards and the new standards in its revised state plan, which would allow a phased approach in applying the new limits. That is, the state plan would make it clear that the standards in the 2000 CISWI rule remain in force for units in the incinerators subcategory and apply until the date the revised existing source standards are effective (as defined in the state plan).[5] States whose existing CISWI units in the incinerators subcategory do not need to improve their performance to meet the revised standards may want to consider a second approach where the state would replace the 2000 CISWI rule standards with the standards in the final rule, follow the procedures in 40 CFR part 60, subpart B, and submit a revised state plan to EPA for approval. If the revised state plan contains only the revised standards (*i.e.,* the 2000 CISWI rule standards are not retained), then the revised standards must become effective immediately for those units in the incinerators subcategory that are subject to the 2000 CISWI rule since the 2000 CISWI rule standards would be removed from the state plan.

EPA will revise the existing Federal plan to incorporate any changes to existing source emission limits and other requirements that EPA ultimately promulgates. The Federal plan applies to CISWI units in any state without an approved state plan. The proposed amendments to the EG would allow existing CISWI units subject to the Federal plan up to five years after promulgation of the revised standards to demonstrate compliance with the amended standards, as required by CAA Section 129(b)(3).

F. Proposed Changes To the Applicability Date of the 2000 NSPS and EG

CISWI units in the incinerators subcategory would be treated differently under the amended standards, as proposed, than they were under the 2000 CISWI rule in terms of whether they are "existing" or "new" sources. Consistent with the CAA Section 129 definition of "new" sources, there would be new dates defining what units are "new" sources. Units in the incinerators subcategory that are currently subject to the NSPS would become "existing" sources under the proposed amended standards and would be required to meet the revised EG for the incinerators subcategory by the applicable compliance date for the revised guidelines. However, those units would continue to be NSPS units subject to the 2000 CISWI rule until they become "existing" sources under the amended standards. CISWI units in the five subcategories that commence construction after the date of this proposal, or for which a modification is commenced on or after the date six months after promulgation of the amended standards, would be "new" units subject to more stringent NSPS emission limits. Units for which construction or modification is commenced prior to those dates would be existing units subject to the proposed EG, except that units in the incinerators subcategory would remain subject to the 2000 CISWI rule until the compliance date of the proposed CISWI EG as discussed above. CISWI solid waste incineration units in the subcategories other than the incinerators subcategory will not in any case be subject to the standards in the 2000 CISWI rule.

Thus, under these proposed amendments, units in the incinerators subcategory that commenced construction after November 30, 1999, and on or before June 4, 2010, or that are reconstructed or modified prior to the date six months after promulgation of any revised final standards, would be subject to the 2000 CISWI NSPS until the applicable compliance date for the revised EG, at which time those units would become "existing" sources. Similarly, units in the incinerators subcategory subject to the EG under the 2000 CISWI rule would need to meet the revised EG by the applicable compliance date for the revised guidelines. CISWI units that commence construction after June 4, 2010 or that are reconstructed or modified six months or more after the date of promulgation of any revised standards would have to meet the revised NSPS emission limits being added to the subpart CCCC NSPS within six months after the promulgation date of the amendments or upon startup, whichever is later.

IV. Rationale

A. Rationale for the Proposed Response To the Remand and the Proposed CAA Section 129(a)(5) Five-Year Review Response

1. Rationale for the Proposed Response To the Remand Pursuant to CAA Section 129(a)(2)

The proposed revised standards represent EPA's position concerning what is necessary to satisfy our initial duties under CAA Section 129(a)(2) to have set MACT limits for CISWI and we are establishing the MACT standards in response to the voluntary remand that EPA requested in 2001 and the Court's remand of the CISWI Definitions Rule. As explained further below, we are subcategorizing CISWI units for the first time in light of the new population of units subject to the rule. Specifically, we are proposing a total of five subcategories. Below, we propose MACT standards for each subcategory of new and existing CISWI units.

See sections II.A. and III.B above for a detailed discussion of EPA's authority to establish CAA Section 129(a)(2) standards for CISWI units.

2. Proposed CAA Section 129(a)(5) Five-Year Review Response

As stated above, EPA interprets CAA Section 129(a)(5) to provide EPA with broad discretion to revise MACT standards for incinerators. As we explained, we do not interpret CAA Section 129(a)(5), as requiring that EPA in each round of review, recalculate MACT floors, and we regard the Court's recent ruling in *NRDC and LEAN* v. *EPA,* in which the Court held that the similar review requirement in CAA Section 112(d)(6) does not require a MACT floor recalculation, as supporting our view. This action does not reflect an independent MACT floor reassessment performed under CAA Section 129(a)(5). However, since these proposed standards do reflect the emissions levels currently achieved in practice by the best performing CISWI units and we have no other information that would cause us to reach different conclusions were a CAA Section 129(a)(5) review to be conducted in isolation, we believe that this rulemaking responding to the Court's remand will necessarily discharge our duty under CAA Section 129(a)(5) to review and revise the current standards.

In performing future five-year reviews of the CISWI standards, we do not intend to recalculate new MACT floors, but will instead propose to revise the emission limits consistent with our interpretation as presented above in

[5] All sources currently subject to the 2000 CISWI EG or NSPS will become existing sources in the incinerators subcategory once the final revised CISWI standards are in place. See section III.F below.

section III.B. We believe this approach reflects the most reasonable interpretation of the review requirement of CAA Section 129(a)(5), and is consistent with how we have interpreted the similar review requirement of CAA Section 112(d)(6), regarding MACT standards promulgated under CAA Section 112.

This action's proposed remand response fulfills our obligations regarding the five-year review of the CISWI standards because the revised MACT floor determinations and emission limits associated with the remand response are based on performance data for currently operating CISWI units and accounts for all non-technology factors that affect CISWI unit performance. The proposed remand response also addresses whether new technologies and processes and improvements in practices have been demonstrated at CISWI units subject to the 2000 CISWI rule. Furthermore, this action also proposes monitoring requirements for control devices that may be used to comply with the proposed standards by units in the subcategories that were not subject to the 2000 CISWI rule, but would be subject to these proposed standards. These controls include activated carbon injection, selective non-catalytic reduction and electrostatic precipitators. Our information indicates that these technologies are currently being used by some of the units that would be subject to this proposal, or have been applied to units in similar source categories, such as municipal waste combustors. We also reviewed CEMS requirements being proposed in standards for the non-waste burning counterparts to the waste-burning kiln and energy recovery unit subcategories, and believe that these can be applied to similar units that would be regulated under the proposed CISWI standards.

B. Rationale for Proposed Subcategories

As discussed earlier in section III.A.2. of this preamble, the population of existing units that would be subject to this proposed regulation has been expanded from the 2000 CISWI rule. The combustion survey Information Collection Request (ICR) responses show that our population of 176 CISWI units now includes combustion units with various fundamental differences in relation to units that were regulated as CISWI in the 2000 CISWI rule. We are proposing to subcategorize CISWI units based on technical and other differences in the processes, such as combustor design, draft type and availability of utilities. These proposed subcategories for CISWI have been established based on fundamental differences in the types and sizes of units that will be subject to the standards.

Incinerators: Incinerators, which are the units currently regulated by the 2000 CISWI rule, are used to dispose of solid waste materials, and emissions are a function of the types of materials burned. Incinerators are designed without integral heat recovery (but may include waste heat recovery). While there are different designs, they all serve the same purpose: Reduction in the volume of solid waste materials. Incinerators can be operated on a batch or continuous basis. The same types of add-on controls, including fabric filters, wet scrubbers, SNCR and activated carbon injection, can be applied to most incinerators. Although the composition of the materials combusted is highly variable and is a key factor in the profile of emissions, we determined it was not appropriate to further subcategorize incinerators because the sources in this category are sufficiently similar such that the incinerators can achieve the same level of performance for the nine regulated pollutants.

Energy-recovery units: Energy recovery units combust solid waste materials as a percentage of their fuel mixture and are designed to recover thermal energy in the form of steam or hot water. Energy recovery units include units that would be considered boilers and process heaters if they did not combust solid waste. Energy recovery units are generally larger than incinerators. They typically fire a mixture of solid waste and other fuels, whereas incinerators burn predominantly solid waste, although sometimes a small amount of supplemental fuel is fired in an incinerator to maintain combustion temperature. Energy recovery units are also different from incinerators in terms of how the fuel is fed into the combustion chamber, the combustion chamber design (which typically includes integral heat recovery) and other operational characteristics. These differences can result in emission profiles for energy recovery units that are different from incinerators but similar to boilers. Combustion of waste materials in these units impacts the emission profile to some degree, although emissions from these units often resemble emissions from boilers that combust traditional fuels.

Waste-burning kilns: Waste-burning kilns are fundamentally different than any other unit being regulated under CISWI. Kilns of all types are physically larger than an incinerator with a comparable heat input. Kiln design and operation are also different. For example, the design is typically a rotating cylindrical kiln with a fuel burner on one end and raw materials being fed in the other (cold) end. Fuel (particularly solids such as tires) may also in some cases be fed at a mid-kiln point. Some kilns also have a large preheater tower with a precalciner that is an additional firing point for both fossil and waste fuels. The temperature profile of kilns is critical in order to produce a saleable product. Another key distinction is that for cement kilns, the source of most of the pollutants is typically the raw materials, not the fuels, and emissions from the raw materials and the solid wastes and fuels are comingled and emitted together. As a result, waste-burning kilns have a very different emissions profile than other CISWI subcategories and that difference can influence the design of applicable controls.

Burn-off ovens: These units typically are very small (<1 MMBtu/hr), batch-operated, combustion units that are used to clean residual materials off of various metal parts, which are then reused. The amount of waste combusted in these units is generally small (pounds per year in some cases) and the configuration of the stacks that serve these units precludes the use of some EPA test methods for measuring emissions and could affect the ability to install certain control devices.

Small, remote, incinerators: These are batch-operated units that combust less than one ton of waste per day and are farther than 50 miles driving distance to the closest MSW landfill. To the extent that these are located in Alaska, a major difference in these types of units is the inability to operate a wet scrubber in the northern climates and the lack of availability of wastewater handling and treatment utilities. We believe this would impact their ability to meet emission limits for pollutants controlled by wet scrubbers. In addition, because of the remote location, these units do not have lower-cost alternative waste disposal options (*i.e.,* landfills) nearby and emissions associated with transporting the solid waste could be significant.

C. Rationale for MACT Floor Emission Limits

EPA must consider available emissions test data to determine the MACT floor. We based the floor calculations on available emissions data.[6] We did receive some additional data earlier this year, but as noted above, due to the court-ordered

[6] In calculating the floors for this proposed rule, we included units combusting manure.

deadline, we did not have sufficient time to review and evaluate that data. We intend to review and evaluate the data submitted earlier this year and any data received during the comment period, and we intend to include those data in our final analysis, as appropriate.

For existing sources, we calculated the MACT floor for each subcategory of sources by ranking the emission test results from units within the subcategory from lowest emissions to highest emissions (for each pollutant) and then taking the numerical average of the test results from the best performing (lowest emitting) 12 percent of sources. That is, the overall 3-run test average values for each existing unit for each pollutant were compiled and ranked from lowest to highest to identify the best performing 12 percent of sources within the subcategory for each pollutant (*i.e.,* on a pollutant-by-pollutant basis).[7] Because the number of units in different subcategories may be different, the number of units that represent the best performing 12 percent of different subcategories may be different. Also, mathematically, the number of units that represent the best performing 12 percent of the units in a subcategory will not always be an integer. To ensure that each MACT standard is based on at least 12 percent of the units in a subcategory, EPA has determined that it is appropriate to always round up to the nearest integer when 12 percent of a given subcategory is not an integer. For example, if 12 percent of a subcategory is 4.1, the standards will be based on the best performing five units even though rounding conventions would normally lead to rounding down to four units. Another example from this proposal is in the incinerator subcategory, which includes 28 units. Twelve percent of 28 is 3.36 units and we established the standards based on the best performing four units.

Once the best 12 percent of units are identified for each source category and pollutant, the individual test run data for these units were compiled and a statistical analysis was conducted to calculate the average and account for variability and, thereby, determine the MACT floor emission limit. The first step in the statistical analysis includes a determination of whether the data used for each MACT floor calculation were normally or log-normally distributed, followed by calculation of the average and 99th percent upper limit (UL).[8] If the data were normally distributed (*e.g.,* similar to a typical bell curve), then the equation to calculate UL was applied to the data. If the data were not normally distributed (for example if the data were asymmetric or skewed to the right or left), then the type of distribution (*e.g.,* log-normal) was determined and a data transformation was performed to normalize the data prior to computing the UL. When the data distribution was found to be log-normal, the data were transformed by taking the natural log of the data prior to calculating the UL value. Two statistical measures, skewness and kurtosis, were examined to determine if the data were normally or log-normally distributed. Additional discussion of the distribution analysis and the data distributions used to develop each MACT floor limit are documented in the memorandum "MACT Floor Analysis for the Industrial and Commercial Solid Waste Incinerators Source Category" in the docket.

The 99th percent UL represents a value that 99 percent of the data in the MACT floor data population would fall below, and therefore, accounts for the run-to-run and test-to-test variability observed in the MACT floor data set. It was calculated by the following equation that is appropriate for small data sets:

$$UL = x + t(0.99,n) * s$$

Where:

x = average of the data.
t(0.99,n) = t-statistic.
n = number of data points in the population.
s = standard deviation.

A detailed discussion of the MACT floor methodology is presented in the memorandum "MACT Floor Analysis for the Industrial and Commercial Solid Waste Incinerators Source Category" in the docket. The calculated existing source UL values (which are based on the emissions data from the best performing 12 percent of sources and account for variability) were selected as the proposed MACT floor emission limits for the nine regulated pollutants in each subcategory. In establishing the limits, the UL values were rounded up to two significant figures. For example, a value of 1.42 would be rounded to 1.5 (as has been done for other CAA Section 129 rules) because a limit of 1.4 would be lower than the calculated MACT floor value.

The UL computation assumes that the data available represents the entire population of data from the best performing CISWI units used to establish the proposed standards. This statistical approach and use of the UL is consistent with the methodology used in the October 6, 2009, HMIWI rule (74 FR 51368).

The summary results of the UL analysis and the MACT floor emission limits for existing units are presented in Tables 4 through 6 of this preamble for each subcategory.

TABLE 4—SUMMARY OF MACT FLOOR RESULTS FOR EXISTING UNITS—PM, HG, CD AND PB

Subcategory	Parameter	PM (mg/dscm)	Hg (mg/dscm)	Cd (mg/dscm)	Pb (mg/dscm)
Incinerators	No. of sources in subcategory =	28	28	28	28
	No. in MACT floor =	4	4	4	4
	Avg of top 12%	4.01	0.000359	0.000362	0.00125
	99% UL of top% (test runs) =	12.76	0.00278	0.00124	0.00258
	Proposed Limit =	13	0.0028	0.0013	0.0026
Energy recovery units	No. of sources in subcategory =	40	40	40	40
	No. in MACT floor =	5	5	5	5
	Avg of top 12%	4.249	0.000053	0.000157	0.000967
	99% UL of top% (test runs) =	9.179	0.000960	0.000409	0.00197
	Proposed Limit =	9.2	0.00096	0.00041	0.002
Waste-burning kilns	No. of sources in subcategory =	53	53	53	53

[7] The pollutant-by-pollutant approach is the same approach used for other CAA Section 129 standards and the rationale for this approach can be found in the preamble for the final HMIWI NSPS and EG (74 FR 51368, 51380 (October 6, 2009)).

[8] The procedure is the same as used for the HMIWI rule (74 FR 51367, October 6, 2009). While the HMIWI preamble referred to this measure as the upper confidence limit (UCL), it used the same equation. In this proposal, we refer to the measure as the UL, which is a more appropriate statistical terminology for this calculation.

TABLE 4—SUMMARY OF MACT FLOOR RESULTS FOR EXISTING UNITS—PM, HG, CD AND PB—Continued

Subcategory	Parameter	PM (mg/dscm)	Hg (mg/dscm)	Cd (mg/dscm)	Pb (mg/dscm)
	No. in MACT floor =	7	7	7	7
	Avg of top 12%	5.36	0.003649	0.000112	0.00105
	99% UL of top% (test runs) =	59.97	0.0240	0.000293	0.00261
	Proposed Limit =	60	0.024	0.0003	0.0027
Burn-off ovens	No. of sources in subcategory =	36	36	36	36
	No. in MACT floor =	5	5	5	5
	Avg of top 12%	9.25	0.00267	0.00123	0.0125
	99% UL of top% (test runs) =	32.14	0.0135	0.00448	0.0408
	Proposed Limit =	33	0.014	0.0045	0.041
Small, remote incinerators	No. of sources in subcategory =	19	19	19	19
	No. in MACT floor =	3	3	3	3
	Avg of top 12%	102.93	0.0017	0.0589	0.5627
	99% UL of top% (test runs) =	238.85	0.00289	0.256	1.4012
	Proposed Limit =	240	0.0029	0.26	1.4

TABLE 5—SUMMARY OF MACT FLOOR RESULTS FOR EXISTING UNITS—HCl, NO_X AND SO_2

Subcategory	Parameter	HCl (ppmdv)	NO_X (ppmdv)	SO_2 (ppmdv)
Incinerators	No. of sources in subcategory =	28	28	28
	No. in MACT floor =	4	4	4
	Avg of top 12%	0.1812	14.7	0.73
	99% UL of top% (test runs) =	28.05	33.09	2.48
	Proposed Limit =	29	34	2.5
Energy recovery units	No. of sources in subcategory =	40	40	40
	No. in MACT floor =	5	5	5
	Avg of top 12%	0.2415	64.24	1.67
	99% UL of top% (test runs) =	1.42	124.55	4.01
	Proposed Limit =	1.5	130	4.1
Waste-burning kilns	No. of sources in subcategory =	53	53	53
	No. in MACT floor =	7	7	7
	Avg of top 12%	0.5503	525.24	34.05
	99% UL of top% (test runs) =	1.435	1,080.3	409.67
	Proposed Limit =	1.5	1,100	410
Burn-off ovens	No. of sources in subcategory =	36	36	36
	No. in MACT floor =	5	5	5
	Avg of top 12%	27.10	51.63	0.88
	99% UL of top% (test runs) =	124.8	110.23	10.48
	Proposed Limit =	130	120	11
Small, remote incinerators	No. of sources in subcategory =	19	19	19
	No. in MACT floor =	3	3	3
	Avg of top 12%	66.5	91.83	12.18
	99% UL of top% (test runs) =	143.7	207	43.35
	Proposed Limit =	150	210	44

TABLE 6—SUMMARY OF MACT FLOOR RESULTS FOR EXISTING UNITS—CO AND DIOXIN/FURANS

Subcategory	Parameter	CO (ppmdv)	Dioxin/Furan (total mass basis) (ng/dscm)	Dioxin/Furan (total TEQ basis) (ng/dscm) [a]
Incinerators	No. of sources in subcategory =	28	28	28
	No. in MACT floor =	4	4	4
	Avg of top 12%	0.860	0.0113	0.55877
	99% UL of top% (test runs) =	2.17	0.0304	27.75
	Proposed Limit =	2.2	0.031	0.0025
Energy recovery units	No. of sources in subcategory =	40	40	40
	No. in MACT floor =	5	5	5
	Avg of top 12%	39.096	0.09824	9.8831
	99% UL of top% (test runs) =	146.8	0.748	7431.9
	Proposed Limit =	150	0.75	0.059
Waste-burning kilns	No. of sources in subcategory =	53	53	53
	No. in MACT floor =	7	7	7
	Avg of top 12%	147.33	0.02958	0.000935
	99% UL of top% (test runs) =	701.18	2.03	7,959
	Proposed Limit =	710	2.1	0.17
Burn-off ovens	No. of sources in subcategory =	36	36	36
	No. in MACT floor =	5	5	5
	Avg of top 12%	28.58	0.0455	b

TABLE 6—SUMMARY OF MACT FLOOR RESULTS FOR EXISTING UNITS—CO AND DIOXIN/FURANS—Continued

Subcategory	Parameter	CO (ppmdv)	Dioxin/Furan (total mass basis) (ng/dscm)	Dioxin/Furan (total TEQ basis) (ng/dscm) [a]
	99% UL of top% (test runs) =	79.36	303.8	b
	Proposed Limit =	80	310	25
Small, remote incinerators	No. of sources in subcategory =	19	19	19
	No. in MACT floor =	3	3	3
	Avg of top 12%	17.42	473.4	b
	99% UL of top% (test runs) =	77.48	1,502	b
	Proposed Limit =	78	1,600	130

[a]—Dioxin/furan TEQ UL values often were greater than the total mass basis UL values, which would result in a TEQ limit greater than the total mass basis. Therefore, paired total mass basis/TEQ data were analyzed and found that TEQ is 0.078 times the amount of the total mass basis. The dioxin/furan TEQ limits were therefore calculated based on 0.078 times the total mass basis limit.
[b]—Dioxin/furan TEQ data were not reported for this subcategory.

Using the UL approach described above for the dioxins/furans TEQ data sometimes resulted in a UL that was greater than that calculated for the associated total mass basis dioxins/furans for the subcategory, due to comparatively large standard deviations of the TEQ data versus those of the total mass basis data set. Dioxins/furans TEQ values should correlate to the total mass basis value at a ratio of less than 1 (a 1-to-1 ratio is the theoretical maximum and would indicate that all the dioxins/furans emitted would consist of the 2,3,7,8-tetrachlorodibenzodioxin (TCDD) congener). We reviewed available data to see what the ratio was for test reports where the total mass and TEQ data were simultaneously reported. Because it is impossible for the same concentration data to be higher on a TEQ basis than a total mass basis, TEQ to total mass basis ratios greater than 1 were omitted. Ratios greater than 0.5 were also screened out of the paired data because EPA is unaware of any combustion units ever having a TEQ to total mass basis ratio as high as 0.5. After screening the paired data, the resulting ratios were on average 0.078 times that of the total mass basis. Therefore, to be consistent in establishing the dioxins/furans TEQ limits and to prevent any instances where the TEQ limit exceeds the associated total mass basis limit, we selected MACT floor limits based on the total mass basis limit multiplied by 0.078. EPA requests comment on this approach for establishing the dioxins/furans TEQ basis limits.

New source MACT floors are based on the best performing single source for each regulated pollutant, with an appropriate accounting for emissions variability. In other words, the best performing unit was identified by ranking the units from lowest to highest for each subcategory and pollutant and selecting the unit with the lowest 3-run test average emission test data for each pollutant. The UL was determined for the individual 3-run test run data set for the best performing source for each regulated pollutant. Tables 7 through 9 of this preamble present the analysis summaries and the new source MACT floor limits.

TABLE 7—SUMMARY OF MACT FLOOR RESULTS FOR PARTICULATE MATTER AND METALS FOR NEW SOURCES

Subcategory	Parameter	PM (mg/dscm)	Hg (mg/dscm)	Cd (mg/dscm)	Pb (mg/dscm)
Incinerators	Avg of top performer	0.0056	0.0001	0.0002	0.0007
	99% UL of top (test runs) =	0.00766	0.000123	0.000654	0.00126
	Proposed limit =	0.0077	0.00013	0.00066	0.0013
Energy recovery units	Avg of top performer	3.270	0.000032	0.000085	0.000454
	99% UL of top (test runs) =	4.37	0.00013	0.000115	0.001189
	Proposed limit =	4.4	0.00013	0.00012	0.0012
Waste-burning kilns	Avg of top performer	0.9287	0.00101	0.000038	0.000386
	99% UL of top (test runs) =	1.80	a	a	0.00077
	Proposed limit =	1.8	0.024	0.0003	0.00078
Burn-off ovens	Avg of top performer	6.676	0.0007	0.0008	0.0050
	99% UL of top (test runs) =	27.48	0.00329	0.00316	0.02859
	Proposed limit =	28	0.0033	0.0032	0.029
Small, remote incinerators	Avg of top performer	83.53	0.001	0.011	0.448
	99% UL of top (test runs) =	268.9	0.00126	0.0564	1.3877
	Proposed limit =	240[b]	0.0013	0.057	1.4[b]

[a]—Only one run data point, therefore UL cannot be calculated. The EG limit was selected as the NSPS limit.
[b]—The NSPS UL limit exceeds the EG limit. The EG limit was selected as the NSPS limit.

TABLE 8—SUMMARY OF MACT FLOOR RESULTS FOR NEW UNITS—HCl, NO_X, SO_2

Subcategory	Parameter	HCL (ppmdv)	NO_X (ppmdv)	SO_2 (ppmdv)
Incinerators	Avg of top performer	0.0413	9.033	0.223
	99% UL of top (test runs) =	0.0732	18.99	1.47
	Proposed limit =	0.074	19	1.5
Energy recovery units	Avg of top performer	0.06813	52.57	1.049
	99% UL of top (test runs) =	0.169	74.52	4.44

TABLE 8—SUMMARY OF MACT FLOOR RESULTS FOR NEW UNITS—HCl, NO_X, SO_2—Continued

Subcategory	Parameter	HCL (ppmdv)	NO_X (ppmdv)	SO_2 (ppmdv)
	Proposed limit =	0.17	75	4.1[a]
Waste-burning kilns	Avg of top performer	0.13	108.3	1.43
	99% UL of top (test runs) =	[b]	134.65	3.58
	Proposed limit =	1.5	140	3.6
Burn-off ovens	Avg of top performer	7.106	13.16	0.000
	99% UL of top (test runs) =	17.56	15.43	0
	Proposed limit =	18	16	1.5[c]
Small, remote incinerators	Avg of top performer	45.437	73.66	4.793
	99% UL of top (test runs) =	244.01	367.23	42.49
	Proposed limit =	150(a)	210[a]	43

[a]—The NSPS UL limit exceeds the EG limit. The EG limit was selected as the NSPS limit.
[b]—Only one run data point, therefore UL cannot be calculated. The EG limit was selected as the NSPS limit.
[c]—Zero value calculated for the subcategory, which will not allow for data variability. The lowest unit with non-zero data was used to calculate this limit.

TABLE 9—SUMMARY OF MACT FLOOR RESULTS FOR NEW UNITS—CO AND DIOXINS/FURANS

Subcategory	Parameter	CO (ppmdv)	Dioxin/Furan (Total mass basis) (ng/dscm)	Dioxin/Furan (Total TEQ basis) (ng/dscm)[a]
Incinerators	Avg of top performer	0.600	0.0023	0.0102
	99% UL of top (test runs) =	1.39	0.00927	0.035
	Proposed limit =	1.4	0.0093	0.00073
Energy recovery units	Avg of top performer	0.650	0.0161	0.0005
	99% UL of top (test runs) =	2.95	0.0334	0.00181
	Proposed limit =	3.0	0.034	0.0027
Waste-burning kilns	Avg of top performer	16.22	0.00011	0.000000
	99% UL of top (test runs) =	35.23	0.000348	0.000000
	Proposed limit =	36	0.00035	0.000028
Burn-off ovens	Avg of top performer	17.51	0.0013	B
	99% UL of top (test runs) =	73.87	0.0101	B
	Proposed limit =	74	0.011	0.00086
Small, remote incinerators	Avg of top performer	0.447	366.3	B
	99% UL of top (test runs) =	3.96	1,103.3	B
	Proposed limit =	4.0	1,200	94

[a]—Dioxin/furan TEQ UL values often were greater than the total mass basis UL values, which would result in a TEQ limit greater than the total mass basis. Therefore, paired total mass basis/TEQ data were analyzed and found that TEQ is 0.078 times the amount of the total mass basis. The dioxin/furan TEQ limits were therefore calculated based on 0.078 times the total mass basis limit.
[b]—Dioxin/furan TEQ data were not reported for this subcategory.

As noted in the tables above, there were some instances where there were fewer test runs available for the best performing unit so that the UL could not be calculated. There were also some cases where the calculated UL produced a result that was greater than the existing MACT floor limit for that pollutant in that subcategory. Since the limit for new sources cannot be less stringent than that of existing sources, EPA selected the existing source MACT floor limit as the new source MACT floor limit in these instances. There was also one case where the best-performing source in the burn-off oven subcategory reported zero for each test run for SO_2. This yields a calculated UL of zero (since the mean and standard deviation are zero), which does not give any allowance for variability. To address this, EPA used test data for the next best-performing source (*i.e.,* the lowest emitting source with non-zero test data). EPA solicits comment on this approach for setting this limit.

EPA also solicits comment on whether the EPA should use an alternate one-sided statistical interval, the 99 percent UPL instead of the UL. In general, a prediction interval (*e.g.,* a UPL) is useful in determining what future values are likely to be, based upon present or past background samples taken. The 99 percent UPL represents the value which one can expect the mean of future 3-run performance tests from the best-performing 12 percent of sources to fall below with 99 percent confidence, based upon the results of the independent sample of observations from the same best performing sources. The 99 percent UPL value based on the test run data for those units in the best-performing 12 percent can be calculated using one of the following spreadsheet equations depending on the distribution of the data:

Normal distribution: 99% UPL = AVERAGE(Test Runs in Top 12%) + [STDEV(Test Runs in Top 12%) × TINV(2 × probability, n − 1 degrees of freedom) × SQRT((1/n) + (1/m))], for a one-tailed upper prediction limit with a probability of 0.01, sample size of n, and number of test runs whose average will be reported to EPA for compliance of m = 3.

Lognormal distribution: 99% UPL = EXP {AVERAGE(Natural Log Values of Test Runs in Top 12%) + [STDEV(Natural Log Values of Test Runs in Top 12%) × TINV(2 × probability, n − 1 degrees of freedom) × SQRT((1/n) + (1/m))]}, for a one-tailed upper prediction limit with a probability of 0.01, sample size of n, and number of test runs whose average will be reported to EPA for compliance of m = 3.

In addition to the nine regulated pollutants, EPA is also proposing opacity standards for new and existing

CISWI. We considered how to appropriately account for variability, given the differences in opacity testing versus testing for the nine regulated pollutants. Because opacity can be affected by the amount, type and particle characteristics of PM in the gas stream, as well as process operation, we believe that opacity is an appropriate surrogate for PM emissions. Therefore, using a ratio of PM to opacity would be an appropriate method for determining the opacity that would be associated with a given PM concentration. Using the data available for CISWI units, we identified the best-performing unit with respect to PM for which we have opacity data, and that unit has a ratio of opacity to PM of 0.053. This ratio was then multiplied by each of the MACT floor PM limits, which were determined accounting for variability, for each subcategory to establish an opacity limit. We are requesting comment on whether this is a reasonable approach to establishing opacity limits while accounting for data variability, and request any additional opacity information that we may utilize to establish an opacity limit. We are also requesting comment on the appropriateness of setting opacity limits for this source category.

As explained above, concurrent with this proposal, EPA is also proposing to define the term "solid waste" for non-hazardous secondary materials. That proposal describes two alternative definitions of solid waste, and EPA has in this proposed rule for CISWI units calculated MACT standards based on each solid waste definition. EPA is proposing MACT emissions standards based on the primary proposed definition of solid waste. In addition, EPA has determined the MACT emissions standards that would apply if the alternative proposed definition of solid waste was finalized, and we are taking comment on those standards.

For purposes of the MACT standards based on the primary proposed definition of solid waste, we have considered certain secondary materials (including pulp and paper sludge, wood residuals, and some tire-derived fuel) not to be solid waste, based on available information. Therefore, units combusting those materials have not been included in the proposed CISWI MACT calculations (*i.e.,* the calculations based on the primary proposed definition of solid waste). EPA solicits comment on that conclusion for these and other secondary materials, and will take into account any relevant information that may warrant revising the proposed CISWI MACT floors. Comments relating to the proposed definition of solid waste should be submitted to the EPA docket for that rulemaking, because EPA will not be addressing any such comments in the final CISWI rule.

D. Rationale for Beyond-the-Floor Alternatives

As discussed above, EPA may adopt emissions limitations and requirements that are more stringent than the MACT floor (*i.e.,* beyond-the-floor). Unlike the MACT floor methodology, EPA must consider costs, non-air quality health and environmental impacts and energy requirement when considering beyond-the-floor alternatives.

In developing this proposal, EPA considered for existing units the proposed CISWI NSPS emission limits as a basis for the beyond-the-floor analysis for each subcategory. The CISWI NSPS limits are the MACT limits applicable to new CISWI units that are established through analysis of the best performing single source for each regulated pollutant (*see* earlier discussion in Section IV.C above). There are separate NSPS limits for each of the five CISWI subcategories: Incinerators; energy recovery units; waste-burning kilns; burn-off ovens; and small, remote incinerators. We request public comments on all aspects of the beyond-the-floor analysis, including whether there are combinations of control approaches that would cost-effectively reduce emissions of the Section 129(a)(4) pollutants. We specifically request that the commenter provide cost, technical and other relevant information in support of any beyond-the-floor alternatives. EPA will evaluate the comments and any other additional information and may adopt beyond-the-floor options for the final rule if any that are identified are determined to be reasonable.

The beyond-the-floor analysis for each subcategory is based on an evaluation of the types of control approaches that would be necessary to achieve the NSPS level of control for the same subcategory. Specifically, for purposes of our beyond-the-floor analysis, we evaluated the different combinations of available emission control techniques, including additional add-on controls, that existing units would have to employ were we to require additional emissions reductions beyond the floor levels set forth above. We are unaware of any control approaches other than those discussed below that would result in emissions reductions from CISWI units.

As part of our impacts analysis (discussed in section V. below), we evaluated whether existing facilities would choose to cease burning solid waste in incineration units after promulgation of the final CISWI standards. We have determined that most facilities with units in the incinerators, small remote incinerators or burn-off ovens subcategories will choose to cease operations once the proposed MACT floor limits are promulgated and that all units in these three subcategories will cease combusting waste if beyond-the-floor levels are adopted. We considered this fact in evaluating the beyond-the-floor options for these three subcategories and specifically in our consideration of the costs associated with the beyond-the-floor options, which we found unreasonable.

We analyzed the beyond-the-floor options on a pollutant-by-pollutant basis for each subcategory. We discuss below the possible beyond-the-floor controls and why we rejected them.

- For PM, Cd and Pb, units would add a fabric filter if there were none already, or improve the fabric filter if the unit is already equipped with one but could not meet the beyond-the-floor limit. Units could also be required to add an additional PM control device if existing fabric filters could not be modified to comply with the beyond-the-floor limit.
- For HCl and SO_2, units would add a packed-bed wet scrubber if there were none already, or if a wet scrubber already existed on the unit, upgrade to a larger pump to increase the liquid to gas ratio. If the unit was equipped with lime injection or a spray dryer, the beyond-the-floor technology was to add more lime for SO_2 control. If more control was needed for SO_2, but not HCl, and the unit has a wet scrubber already, they would add caustic to the scrubber liquor. Units could also be required to add an additional SO_2 control device if the existing scrubber could not be modified to comply with the beyond-the-floor limit. The floor limits established above for waste-burning kilns are already at the quantification limits of the test method and we are not aware of alternative methods to quantify additional reductions in HCl emissions. In addition, we are not aware of any control technologies available that would reduce HCl emission from existing waste-burning kilns to levels below the floor levels. Therefore, we could not evaluate a beyond-the-floor option for HCl emissions from waste-burning kilns.
- For Hg and CDD/CDF, activated carbon would be added and the carbon addition rate would be adjusted to meet

the amount of reduction necessary to meet the proposed limit.

• For NO_X, no beyond-the-floor options are demonstrated to be achievable, as discussed below.

• For CO, the beyond-the-floor option consists of afterburner retrofits, tune-ups, advanced combustion controls or catalytic oxidation for each subcategory except for waste-burning kilns and energy recovery units. No beyond-the-floor options are available for these two subcategories, as discussed below.

CO. For CO, we evaluated afterburner retrofits, tune-ups, advanced combustion controls or an oxidation catalyst for incinerators, small remote incinerators and burn-off ovens as being potential beyond-the-floor control technologies that could be applied to these units. Afterburner retrofits are applicable to units that have a secondary combustion chamber or an afterburner chamber installed on the device. Waste-burning kilns and energy recovery units are not designed with secondary chambers or afterburners, so this particular control cannot be applied to these two subcategories.

For waste burning kilns, a significant amount of CO emissions can result from the presence of organic compounds in the raw materials and not only from incomplete combustion, so good combustion controls and practices are not as effective. Oxidation catalysts have not been applied to waste-burning kilns and may not be as effective on waste-burning kilns as they are on other sources due to plugging problems. The only effective beyond-the-floor control we could identify for waste-burning kilns would be a regenerative thermal oxidizer (RTO). In the analysis for the proposed Portland Cement NESHAP, EPA notes that the additional costs and energy requirements associated with an RTO are significant, with an additional annualized cost of $3.8 million per year (*see* 74 FR 21153). Under the most cost effective scenario (existing unit emitting at 710 ppmv and a 98 percent CO reduction) the cost per ton of additional CO removal would be approximately $1,500. However, at the CO levels for most facilities, the cost per ton could be much higher. In addition, RTO have significant additional energy requirements, and themselves create secondary emissions of CO, NO_X, SO_2 and PM due to their electrical demands (see 74 FR 21153). Given the cost and adverse environmental and energy impacts, we determined that RTO was not a reasonable beyond-the-floor alternative to control CO emissions from waste-burning kilns.

For energy recovery units, we analyzed a beyond-the-floor CO limit of 3 ppm. In comparison, the proposed MACT floor emission limit is 150 ppm. Therefore, the beyond-the-floor CO emission limit is approximately 98 percent less than the MACT floor emission limit. We are unaware of any technology that is able to continuously meet a 3 ppm CO limit for all existing energy recovery units. Variances in fuel composition and condition will have an effect on CO emissions in addition to the controls in place, so this limit may be achievable for the best source based on their particular unit design and fuel inputs, but not demonstrated to be achievable for any other existing units without unreasonable costs associated with modification of the units. As a comparison, the proposed boiler NESHAP limit varies by combustor design, but for biomass boilers, which burn fuels and have combustor designs that are similar in characteristics to some CISWI energy recovery units, the limits are in the order of 200 to 700 ppm. Given the lack of available controls that are demonstrated to achieve the beyond-the-floor emission limits at existing units and the costs associated with making the necessary modifications at existing units, we are not proposing beyond-the-floor limits for CO for energy recovery units.

NO_X. For NO_X, we evaluated SNCR as the likely control technology that sources would apply to achieve the beyond-the-floor limits. The control option would be to add SNCR if there were none installed to meet the MACT floor, or to increase the reagent injection rate if the unit was already equipped with SNCR technology. We also considered whether selective catalytic reduction (SCR) could be utilized by sources to achieve the beyond-the-floor limits. SNCR is a proven technology for waste-combustion units, with typical effectiveness of 30 to 50 percent. These reductions are within the reach of the levels estimated to meet the MACT floor emission limits. However, to achieve lower reductions (*i.e.,* greater than 50 percent) than the beyond-the-floor limits would require, SNCR may need to be applied in conjunction with combustion controls (Air Pollution Control Technology Fact Sheet, SNCR, EPA–452/F–03–031). Feasibility of these combustion controls, such as low NO_X burners or combustion chamber modifications, are unit-specific and are likely not applicable to all existing units; therefore, compliance with the beyond-the-floor would likely require significant modification at considerable cost for some existing units. In contrast, new sources can be designed so that the combustion chamber and air flow characteristics reduce NO_X formation, which, in combination with SNCR controls, would be able to meet the new source NO_X limits. SCR is typically utilized in combustion units such as industrial boilers and process heaters, gas turbines and reciprocating internal combustion engines (Air Pollution Control Technology Fact Sheet, SCR, EPA–452/F–03–032). We are not aware of any successful applications of SCR technology to waste-combustion units, however. This may be due to difficulties operating SCRs in operations where there is significant PM or sulfur loading in the gas stream. These two gas stream constituents can reduce catalyst activity, and lower the resulting effectiveness of the SCR, through catalyst poisoning and blinding/plugging of active sites by ammonia sulfur salts (formed from sulfur in the flue gas with the ammonia reagent) and PM (Air Pollution Control Technology Fact Sheet, SCR, EPA–452/F–03–032). Therefore, we determined that available controls were not demonstrated adequately for existing CISWI units in any of the five subcategories to meet the beyond-the-floor NO_X emission limits.

HCl and SO_2. We expect that waste-burning kilns would install scrubbers to meet the proposed MACT floor emission limits for HCl, and the proposed EG and NSPS limits for HCl are the same. As discussed above, the HCl floor level for waste-burning kilns is near the quantification limits of the available test methods, and we are not aware of alternative methods to quantify beyond-the-floor reductions.

The scrubbers needed to meet the CISWI MACT floor limits for HCl would also meet the CISWI MACT floor levels for SO_2. However, we are not certain that it is feasible for existing waste-burning kilns to utilize additional caustic in their scrubbers, or in their existing flue gas desulfurization devices, to be able to consistently meet the 3.6 ppm beyond-the-floor emission limit for SO_2. There are limits to the amounts of additional caustic or lime that are technically feasible and the SO_2 content of the flue gas will vary depending on the fuel and the sulfur content of process raw materials that are charged to the waste-burning kiln. The only option for achieving additional SO_2 control is to add an additional SO_2 scrubbing device in series with the scrubber required to comply with the MACT floor limit. While we did not quantify the costs, we concluded, based on our review of the cost information, that this level of control would pose unreasonable costs that would result in units ceasing to combust wastes in kilns. Therefore, we determined that additional controls were not demonstrated to continuously meet the beyond-the-floor SO_2 emission limits at existing waste-burning kilns. We examined beyond-the-floor options for the other subcategories as discussed below.

PM. In our analysis, we estimate that waste-burning kilns would install fabric filter controls or improve existing fabric filters to meet the proposed CISWI MACT floor limits for PM and metals. To meet the metals floor limits, highly efficient fabric filters, and possibly membrane bags, would be needed. These controls are the best technology available to control PM, and we have not identified any additional controls that are available that would enable existing waste-burning kilns to continuously meet the beyond-the-floor PM emission limit equivalent to the proposed CISWI NSPS limit (which is considerably lower than the CISWI floor). We analyzed beyond-the-floor controls for the other four subcategories as discussed below.

As with waste-burning kilns, we estimate that existing units in the energy recovery units subcategory would install fabric filter controls or improve existing fabric filters to meet the proposed CISWI MACT floor limits for PM and metals. As with waste-burning kilns, the fabric filters would need to be highly efficient to meet the metals floor limits, and likely would need to be membrane bags. As stated above, membrane fabric filters are the best technology available to control PM and metals. As such, the fabric filters that we believe will be necessary to control the metals will likely achieve a level of performance that is better than the MACT floor limit for PM, resulting in additional PM reductions beyond the existing source floor level of control. For this reason, we believe that the PM emissions reductions associated with going beyond-the-floor to the new source floor limits is less than the 200 tons per year estimated based on an evaluation of the difference in PM emissions under the proposed existing source floor and the proposed new source floor. Furthermore, to achieve PM and metals emissions reductions greater than those achieved using the fabric filters that will be required to meet the MACT floor emission limits, existing sources would likely need to install an additional particulate control device, such as a cartridge filtration system, which would require additional capital and operating expense, as well as require additional energy to power the fans for adequate draft. While we did not quantify the costs, we concluded, based on our review of the cost information, that this level of control would pose unreasonable costs.

We analyzed beyond-the-floor controls for the other three subcategories as discussed below.

Emissions Reduction Analysis Results. We analyzed the emissions reductions that would be achieved if the beyond-the-floor levels were adopted as MACT for those pollutants and subcategories for which additional control techniques were identified that could achieve beyond-the-floor emission limits. We estimate that the beyond-the-floor levels for existing CISWI units would achieve additional emission reductions (relative to the MACT floor) of 326 tons per year (0.01 tons Cd, 3.5 CO, 113 HCl, 0.07 Pb, 0.03 Hg, −0.1 NO_X, 208 PM, 1.6 SO_2 and 0.0001 dioxins/furans).

Analysis Results for Incinerator, Small Remote Incinerator and Burn-Off Ovens Subcategories

As was done in the cost analysis for the MACT floor emission limits, we also considered whether units would cease to combust waste and choose an alternative waste disposal method rather than add controls to comply with the beyond-the-floor limits. Based on the high costs of controls relative to the costs of alternative waste disposal methods, we concluded that all units within the incinerators, burn-off ovens and small remote incinerators subcategories would shut down rather than comply with the beyond-the-floor limits. Facilities with incinerator units and small remote incinerator units would use alternative landfill disposal and facilities with burn-off ovens would use abrasive blasting. In comparison, for the MACT floor impacts analysis, we determined there were 17 total units within these three subcategories that would remain open and comply with the MACT floor emission limits. The emission reductions above account for the secondary impacts of landfill gas flare emissions that would result from the incremental waste that is diverted to landfills from existing CISWI units. Once these secondary impacts of the landfill gas flaring are accounted for, the emissions reduction is approximately zero for the incinerator, small remote incinerator and burn-off oven subcategories, mainly due to the increase in emissions from flaring the landfill gases generated by the additional diverted waste, compared to the modest additional stack emissions reductions from shutting these units down.

The cost of the additional emissions reductions associated with going from the MACT floor to the beyond-the-floor level vary by pollutant and subcategory. For the incinerator, small remote incinerator and burn-off oven subcategories, the incremental annualized costs of control or alternative waste disposal is approximately $690,000. As mentioned above, because of the increase in landfill gases, this additional cost would result in no additional emissions reductions for these source categories. The beyond-the-floor limits for these source categories would be achieved at considerable cost, would result in closure of additional units that would not close under the floor alternative, and would result in no additional emissions reduction; therefore, we have determined it is not reasonable to go beyond-the-floor for these source categories.

Analysis Results for Energy Recovery Units and Waste-Burning Kilns. For the energy recovery units and waste-burning kilns, we analyzed the additional emissions reductions and additional control and monitoring costs of going beyond-the-floor by pollutant groups according to the controls described above. Table 10 of this preamble lists the incremental costs and pollutant emissions reductions relative to the MACT floor level of control.

TABLE 10—INCREMENTAL COSTS AND EMISSION REDUCTIONS EXPECTED FOR EXISTING UNITS TO COMPLY WITH BEYOND-THE-FLOOR EMISSION LIMITS (RELATIVE TO THE MACT FLOOR)

Pollutants	Subcategory	Additional annual costs ($/yr)	Additional emissions reductions (ton/year)	Incremental cost effectiveness (additional costs/additional emissions reductions, $/ton)
PM, Cd, Pb	Energy recovery unit	2,082,013	202	10,307
Hg, CDD/CDF	Energy recovery unit	18,562,287	0.03	618,742,900
	Waste-burning kiln	126,944,291	0.00002	>1 Billion
HCl, SO_2	Energy recovery unit	15,985,182	77	207,599

As discussed earlier, we believe that the additional emissions reduction for PM, Cd, and Pb are likely to be much lower than this analysis suggests, because sources will require some of the best PM control devices to meet the MACT floor level of control for metals, and will likely exceed the level of performance for PM needed to meet the MACT floor emission limit. Therefore, we have concluded that the incremental costs of additional control above the MACT floor emission limits are not reasonable relative to the level of emission reduction achieved.

New Units. No beyond-the-floor option was analyzed for new units because we are not aware of any technologies or methods to achieve emission limits more stringent than the MACT floor limits for new units. As an example, we have discussed potential problems associated with additional SNCR reagent earlier in this section of the preamble. Incremental additions of activated carbon have not been proven to achieve further reductions above the projected flue gas concentration estimated to achieve the limits for new sources. Furthermore, we already estimate no new CISWI sources will be constructed due to the costs associated with the MACT floor limits in the proposed NSPS. For this reason, we do not think it is reasonable to further add to the costs associated with the proposed NSPS.

In light of the technical feasibility, costs, energy and non-air quality health and environmental impacts discussed above, we have determined it is not reasonable to establish beyond-the-floor limits for existing and new CISWI units.

We also calculated potential beyond-the-floor emissions reductions for the "alternative approach" identified for consideration and comment in a parallel proposal under RCRA, which could potentially result in an additional 13,014 tons per year of projected emissions reductions (0.9 Cd, 3.5 CO, 7 HCl, 16.4 Pb, 1.3 Hg, −0.1 NO_X, 12,984 PM, 1.6 SO_2 and 0.001 dioxins/furans). These are the reductions that would be achieved if we adopted the NSPS limits for the alternative approach as the beyond-the-floor limit for existing sources. We considered the same technical considerations and used the same emissions reductions and cost calculation methodologies described above for the proposed approach, which result in very similar cost effectiveness values as presented in Table 10 of this preamble. However, we note that several of the MACT floor limits for energy recovery units and waste-burning kilns under the alternative approach are not as stringent as those for the proposed approach, and the additional emission reductions that can be achieved by going beyond the floor for the alternative approach are much greater than the emission reductions available by going beyond the floor under the primary approach. Therefore, in the case of the alternative approach, there may be intermediate levels of control that would be reasonable. Additional information on floor and beyond-the-floor costs is discussed in "Compliance Cost Analyses for Existing CISWI Units" found in the CISWI docket.

E. Rationale for Other Proposed Amendments

In addition to the proposed emission limits, the following amendments are being proposed in this action.

1. Definitions and Removal of Exemptions

We are revising the definition of CISWI unit to reflect the Court decision that all units burning solid waste as defined by the Administrator under RCRA are to be covered by regulation under CAA Section 129. We are also adding a definition of "solid waste incineration unit" and we are removing the definition of "commercial and industrial waste." We are also proposing definitions of the five subcategories of CISWI units that will be regulated under the proposed rules.

In the 2000 CISWI rule, there were 15 types of units that were exempted from regulation under CISWI. We are proposing to remove some of the exemptions contained in the 2000 CISWI rule and we are maintaining the statutory exemptions and the exemptions for units included in the scope of other CAA Section 129 standards as discussed below. We believe that the proposed rule is drafted in such a way to avoid the situation where a unit subject to standards under another Section 129(a)(1) standard, would also be subject to this rule. We request comment on the proposed exemptions that address units included in the scope of other CAA Section 129 standards.

To address the vacatur of the CISWI Definitions rule, EPA is proposing to regulate any combustion unit burning any solid waste, as that term is defined by the Administrator under RCRA, at a commercial or industrial facility. The 2000 CISWI rule specifically exempted six types of units that may be CISWI units under this proposed rule: agricultural waste incineration units; cyclonic barrel burners; burn-off ovens; cement kilns; chemical recovery units; and laboratory analysis units. These six types of units would be regulated under the revised proposed CISWI standards if they burn solid waste at a commercial or industrial facility.

The exemptions that would be retained in the proposed rule are either statutory exemptions provided under CAA Section 129, or are for waste combustion units regulated under other Section 129 NSPS or EG. In particular, CAA Section 129(g)(1) specifically exempts:

"* * * incinerators or other units required to have a permit under section 3005 of the Solid Waste Disposal Act. The term 'solid waste incineration unit' does not include (A) materials recovery facilities (including primary and secondary smelters) which combust waste for the primary purpose of recovering metals, (B) qualifying small power production facilities, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 769(17)(C)), or qualifying cogeneration facilities, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), which burn homogeneous waste (such as units which burn tires or used oil, but not including refuse-derived fuel) for the production of electric energy or in the case of qualifying cogeneration facilities which burn homogeneous waste for the production of electric energy and steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes * * *"

Therefore, the proposed CISWI rule retains exemptions for materials recovery facilities, qualifying small power production facilities, qualifying cogeneration facilities and hazardous waste combustors required to have a permit under Section 3005 of the Solid Waste Disposal Act.

EPA is also proposing to exempt from CISWI the waste combustion units that are currently included in the scope of another effective NSPS or EG or that EPA currently intends to regulate in an NSPS or EG. Those waste combustion units are: MWC units; medical waste incineration units; sewage treatment plants; sewage sludge incineration units; and OSWI units, which include pathological waste incineration units and institutional incinerators. There are existing standards for MWC units, medical waste combustion units and sewage treatment plants, but no standards are currently in place for pathological waste incineration units or SSI units. Regulations are currently being developed for SSI under proposed NSPS and EG of part 60. EPA also currently intends to regulate pathological waste incineration units in the revised "Other Solid Waste Incineration (OSWI)" standards under development. EPA's intent in the CISWI rule is to exclude units that are properly regulated as OSWI units. However, additional solid waste incineration units may exist that are OSWI units, which EPA has not identified in this proposed rule. EPA solicits comment on the scope of the proposed exemptions for units subject to CAA Section 129 standards.

We are also proposing the removal of the 2000 CISWI rule exemption for units burning greater than 30 percent MSW and with the capacity to burn less than 35 tons per day of MSW or refuse derived fuel. We are proposing to remove this exemption to ensure that any CISWI unit combusting any solid waste is subject to these standards. Therefore, commercial and industrial units that were previously exempt pursuant to this provision would be required to meet the emission limits and operating requirements of the proposed rule.

The 2000 CISWI rule also defined CISWI units such that industrial and commercial waste combustion units recovering energy (*e.g.* units that would be boilers and process heaters if they did not combust solid waste) were not subject to regulation as CISWI units. This definition is not consistent with the statute and, as discussed above, the definitions are being revised to address the CISWI Definitions Rule vacatur so that any unit at a commercial or industrial facility combusting any solid waste, as defined by the Administrator under RCRA, will be subject to the CISWI NSPS or EG. Therefore, the proposed definitions would no longer make a distinction between those units that recover energy and those units that do not recover energy. As discussed earlier, those energy recovery units that burn solid waste but were previously subject to the boilers rule are now CISWI units and are addressed under the energy recovery units subcategory.

Cement kilns and rack, part and drum reclamation units (*i.e.* burn-off ovens) were exempt from the 2000 CISWI standards and, as stated above, we are proposing to create subcategories for those units and subject them to this proposed rule in light of the CISWI Definitions Rule vacatur. We note that other Section 129 standards may contain an exemption for cement kilns. Those exemptions do not excuse waste burning kilns as defined in this proposed rule from compliance with the proposed CISWI standards. As those other Section 129 rules are amended, we will clarify that cement kilns that meet the proposed definition of waste-burning kiln are exempt from those standards because they are subject to the CISWI standards.

For one type of unit that is exempt by statute from the definition of solid waste incineration unit, air curtain incinerators combusting "clean wood", we are requesting comment on the requirement for those units to obtain title V permits.

In addition, we are considering amending the exemption provisions at 40 CFR 60.2020 and 60.2555 to remove all references to units that are statutorily exempt from the definition of solid waste incineration unit. If we took such action, we would develop a new section to retain the notification requirements contained in those sections and applicable to such statutorily exempt units. We request comment on this proposed approach.

2. Performance Testing and Monitoring Requirements

We are proposing some adjustments to the performance testing and monitoring requirements that were promulgated in 2000. For existing CISWI units, we are proposing retaining the current performance testing and monitoring requirements of the rule and adding the following requirements:

- Annual inspections of scrubbers, fabric filters and other air pollution control devices that may be used to meet the emission limits.
- Annual visual emissions test of ash handling procedures (for all subcategories except waste-burning kilns).
- Control device parameter monitoring for activated carbon injection, electrostatic precipitators and SNCR controls.
- For energy recovery units: CO CEMS monitoring, continuous opacity monitoring (COMS) for units that are not equipped with wet scrubbers and PM CEMS for units greater than 250 MMBtu/hr capacity.
- For waste-burning kilns, Hg CEMS monitoring.
- Monitoring of bypass stack use if installed at an affected unit.

These proposed requirements were selected to provide additional assurance that sources continue to operate at the levels established during their initial performance test. For the waste-burning kiln and energy recovery unit subcategories, the proposed CEMS requirements are consistent with the CAA Section 112(d) standards proposed for their non-waste burning counterparts, but adjusted to reflect the pollutants subject to CAA Section 129 regulations. For example, the proposed Portland Cement NESHAP (74 FR 21136) requires monitoring of Hg with a Hg CEMS. Likewise, the energy recovery unit monitoring requirements are similar to the Boiler NESHAP being proposed concurrently with the CISWI proposal. In doing so, we are not only reflecting the improvements in monitoring technology and practices for these subcategories made since 2000, but are also providing consistency in monitoring, recordkeeping and reporting, where appropriate. Likewise, the visual emissions test of ash handling procedures and annual control device inspections have been adopted for HMIWI, another CAA Section 129 source category. HMIWI standards (74 FR 51367) contain these requirements to ensure that the ash, which may contain metals, is not emitted to the atmosphere through fugitive emissions and that control devices are maintained properly.

The large and small MWC standards also have similar fugitive ash monitoring requirements. We propose to require the fugitive ash monitoring provisions that are contained in the HMIWI and MWC rules.

The proposed amendments would allow sources to use the results of emissions tests conducted within the previous two years to demonstrate initial compliance with the revised emission limits as long as the sources certify that the previous test results are representative of current operations. Such tests must have been conducted using the test methods specified in the CISWI rules and must be the most recent tests performed on the unit. Those sources, whose previous emissions tests do not demonstrate compliance with one or more of the revised emission limits, would be required to conduct another emissions test for those pollutants. This allowance to use previous tests would minimize the burden to affected sources, especially since most sources performed recent emissions tests in support of the development of the CISWI standards (*i.e.,* the CISWI Phase 2 ICR) and sources subject to the 2000 CISWI EG already test for HCl, PM and opacity on an annual basis. We seek comment on the appropriateness of the use of previously conducted performance tests.

The proposed amendments also would allow for reduced testing of PM, HCl, and opacity as were allowed in the rule promulgated in 2000, but we are proposing amending these reduced testing allowances to provide a compliance margin of 75 percent of the standard to be able to qualify for testing for these pollutants once every three years. The reduced testing allowance and compliance margin provides flexibility and incentive to sources that operate well within the emissions standard, and to provide more timely follow-through, on assuring that sources that are marginally in compliance, will remain in compliance.

Additional requirements also are proposed for new CISWI. For new sources, we are proposing retaining the current requirements and adding the requirements for existing units as listed above, plus requiring CO CEMS for all subcategories of CISWI. These CEMS would be relatively simple to install for a new CISWI unit, and would help ensure that the sources are operated well using good combustion practices. Low CO levels are an indicator of complete combustion and that the unit is being operated in a manner that minimizes not only CO emissions, but also emissions of other pollutants.

We also are clarifying that the rule allows for the following optional CEMS use: CO CEMS, NO_X CEMS, and SO_2 CEMS for existing sources; and NO_X CEMS, SO_2 CEMS, PM CEMS, HCl CEMS, multi-metals CEMS, Hg CEMS, integrated sorbent trap Hg monitoring and integrated sorbent trap dioxin monitoring for existing and new sources. Some of the subcategories may have CO CEMS, NO_X CEMS, or SO_2 CEMS already to meet other regulatory or permit requirements and we propose to would allow them to continue to use these monitors to demonstrate continuous compliance with the CISWI standards. The optional use of HCl CEMS, multi-metals CEMS, integrated sorbent trap Hg monitoring and integrated sorbent trap dioxin monitoring will be available on the date a final performance specification for these monitoring systems is published in the **Federal Register** or the date of approval of a site-specific monitoring plan. The proposed monitoring provisions are discussed in more detail below.

Monitoring Provisions for SNCR. The proposed amendments would require monitoring of secondary chamber temperature (if applicable to the CISWI unit, since certain subcategories may not have a secondary chamber or afterburner) and reagent (*e.g.,* ammonia or urea) injection rate for CISWI that install SNCR as a method of reducing NO_X emissions. These are easily measured parameters that will ensure the SNCR continues to be well operated and able to achieve the desired emissions reductions.

Monitoring Provisions for Activated Carbon Injection (Hg sorbent injection). The proposed amendments would require monitoring of activated carbon sorbent injection rate to ensure that the minimum sorbent injection rate measured during the compliance test is continually maintained.

Monitoring Provisions for ESP. The proposed amendments would require monitoring of the voltage and amperage of the collection plates to ensure that the ESP operating parameters measured during the compliance test are maintained on a continuous basis.

CO CEMS. The proposed amendments would require the use of CO CEMS for new sources and allow the use of CO CEMS on existing sources, except energy recovery units, where a CO CEMS is also required for existing sources. Owners and operators who use CO CEMS would be able to discontinue their annual CO compliance test. The continuous monitoring of CO emissions is an effective way of ensuring that the combustion unit is operating properly. The proposed amendments incorporate the use of performance specification (PS)–4B (Specifications and Test Procedures for Carbon Monoxide and Oxygen Continuous Monitoring Systems in Stationary Sources) of appendix B of 40 CFR part 60.

The proposed CO emission limits are based on data from infrequent (normally annual) stack tests and compliance would be demonstrated by stack tests. The change to use of CO CEMS for measurement and enforcement of the same emission limits must be carefully considered in relation to an appropriate averaging period for data reduction. In past EPA rulemakings for incineration units, EPA has selected averaging times between four hours and 24 hours based on statistical analysis of long-term CEMS data for a particular subcategory. Because sufficient CO CEMS data are unavailable for CISWI to perform such an analysis and determine an emission level that would correspond to a shorter averaging period, EPA concluded that the use of a 24-hour block average was appropriate to address potential changes in CO emissions. The 24-hour block average would be calculated following procedures in EPA Method 19 of appendix A–7 of 40 CFR part 60. Facilities electing to use CO CEMS as an optional method would be required to notify EPA one month before starting use of CO CEMS and one month before stopping use of the CO CEMS. In addition, EPA specifically requests comment on whether continuous monitoring of CO emissions should be required for all existing CISWI.

PM CEMS. The proposed amendments would allow the use of PM CEMS as an alternative testing and monitoring method (except for energy recovery units with a heat input capacity greater than 250 MMBtu/hr which are required to use them). Owners or operators who are required to use, or choose to rely on, PM CEMS would be able to discontinue their annual PM compliance test. In addition, because units that demonstrate compliance with the PM emission limits with a PM CEMS would also be meeting the opacity standard, compliance demonstration with PM CEMS would be considered a substitute for opacity testing or opacity monitoring. Owners and operators who use PM CEMS also would be able to discontinue their monitoring of minimum wet scrubber pressure drop, horsepower or amperage. These parameter monitoring requirements were designed to ensure the scrubber continues to operate in a manner that reduces PM emissions and would not be necessary if PM is directly measured on a continuous basis. The proposed amendments incorporate the use of PS–11 (Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources) of appendix B of 40 CFR part 60 for PM CEMS and PS–11 QA Procedure 2 to ensure that PM CEMS are installed and operated properly and produce good quality monitoring data.

The proposed PM emission limits are based on data from infrequent (normally annual) stack tests and compliance would generally be demonstrated by stack tests. The use of PM CEMS for measurement and enforcement of the same emission limits must be carefully considered in relation to an appropriate averaging period for data reduction. Because PM CEMS data are unavailable for CISWI, EPA concluded that the use of a 24-hour block average was appropriate to address potential changes in PM emissions that cannot be accounted for with short term stack test data. The 24-hour block average would be calculated following procedures in EPA Method 19 of appendix A–7 of 40 CFR part 60. An owner or operator of a CISWI unit who wishes to use PM CEMS would be required to notify EPA one month before starting use of PM CEMS and one month before stopping use of the PM CEMS.

Opacity Monitors (COMS). EPA is proposing that energy recovery units that do not rely on a wet scrubber to control emissions continuously monitor opacity. EPA's understanding is that moist gas streams affect the accuracy of COMS systems; therefore these systems would not be applicable to units using wet scrubbers. If the energy recovery unit is required to monitor PM with a PM CEMS, or an owner or operator wishes to use PM CEMS, then they would not be required to also operate a COMS. Other source categories with COMS requirements require one hour block averages, which is what we are proposing for CISWI units. The proposed amendments incorporate the use of performance specification 1 of appendix B of 40 CFR part 60 for COMS.

While the proposed amendments require PM CEMS for very large energy recovery units (those over 250 MMBtu/hr), EPA is also requesting comment on the utility and practicality of requiring PM CEMS on energy recovery units of 100 MMBTU/hour design capacity or greater, as well as on waste-burning kilns and large incinerators. EPA specifically solicits comment on appropriate size thresholds for requiring PM CEMS on incinerators.

Other CEMS and Monitoring Systems. EPA also is proposing the optional use of NO_X CEMS, SO_2 CEMS, HCl CEMS, multi-metals CEMS, Hg CEMS, integrated sorbent trap Hg monitoring and integrated sorbent trap dioxin monitoring as alternatives to the existing monitoring methods for demonstrating compliance with the NO_X, SO_2, HCl, metals (Pb, Cd and Hg) and dioxin/furans emissions limits. Because CEMS data for CISWI are unavailable for all subcategories for NO_X, SO_2, HCl and metals, EPA concluded that the use of a 24-hour block average was appropriate to address potential changes in emissions of NO_X, SO_2, HCl and metals that cannot be accounted for with short term stack test data. EPA has concluded that the use of 24-hour block averages would be appropriate to address emissions variability and EPA has included the use of 24-hour block averages in the proposed rule. The 24-hour block averages would be calculated following procedures in EPA Method 19 of appendix A of 40 CFR part 60. The proposed amendments incorporate the use of performance specification 2 of appendix B of 40 CFR part 60 for NO_X CEMS. Although final performance specifications are not yet available for HCl CEMS and multi-metals CEMS, EPA is considering development of performance specifications. The proposed rule specifies that these options will be available to a facility on the date a final performance specification is published in the **Federal Register.**

The use of HCl CEMS would allow the discontinuation of HCl sorbent flow rate monitoring, scrubber liquor pH monitoring and the annual testing requirements for HCl. EPA has proposed PS–13 (Specifications and Test Procedures for Hydrochloric Acid Continuous Monitoring Systems in Stationary Sources) of appendix B of 40 CFR part 60 and expects that performance specification can serve as the basis for a performance specification for HCl CEMS use at CISWI. The procedures used in proposed PS–13 for the initial accuracy determination use the relative accuracy test, a comparison against a reference method. EPA is taking comment on an alternate initial accuracy determination procedure, similar to the one in section 11 of PS–15 (performance specification for Extractive FTIR Continuous Emissions Monitor Systems in Stationary Sources) of appendix B of 40 CFR part 60 using the dynamic or analyte spiking procedure.

EPA believes multi-metals CEMS can be used in many applications, including CISWI. EPA has monitored side-by-side evaluations of multi-metals CEMS with EPA Method 29 of appendix A–8 of 40 CFR part 60 at industrial waste incinerators and found good correlation. EPA also approved the use of multi-metals CEMS as an alternative monitoring method at hazardous waste combustors. EPA believes it is possible to adapt proposed PS–10 (Specifications and Test Procedures for Multi-metals Continuous Monitoring Systems in Stationary Sources) of appendix B of 40 CFR part 60 or other EPA performance specifications to allow the use of multi-metals CEMS at CISWI. We request comment on the appropriateness of using multi-metals CEMS instead of initial performance tests coupled with PM CEMS and other surrogates. The procedures used in proposed PS–10 for the initial accuracy determination use the relative accuracy test, a comparison against a reference method. EPA is taking comment on an alternate initial accuracy determination procedure, similar to the one in section 11 of PS–15 using the dynamic or analyte spiking procedure.

The proposed requirements for using Hg CEMS (performance specification 12A—Specifications and Test Procedures for Total Vapor Phase Mercury Continuous Emission Monitoring Systems in Stationary Sources) or integrated sorbent trap Hg monitoring system (performance specification 12B—Specifications and Test Procedures for Total Vapor Phase Mercury Continuous Emission Monitoring Systems from Stationary Sources Using a Sorbent Trap Monitoring System or appendix K of Part 75) for waste-burning kilns, and the options of using Hg CEMS or an integrated sorbent trap Hg monitoring system for other CISWI, would take effect on the date of approval of a site-specific monitoring plan. An owner or operator of a CISWI unit who wishes to use Hg CEMS would be required to notify EPA one month before starting use of Hg CEMS and one month before stopping use of the Hg CEMS. The use of multi-metals CEMS or Hg CEMS would allow the discontinuation of wet scrubber outlet flue gas temperature monitoring. Mercury sorbent flow rate monitoring could not be eliminated in favor of a multi-metals CEMS or Hg CEMS because it also is an indicator of dioxin, furans control.

The integrated sorbent trap monitoring of Hg would entail use of a continuous automated sampling system with analysis of the samples at set intervals using any suitable determinative technique that can meet appropriate criteria. The option to use a continuous automated sampling system would take effect on the date of approval of a site-specific monitoring plan. As with Hg and multi-metal

CEMS, Hg sorbent flow rate monitoring could not be eliminated in favor of integrated sorbent trap monitoring of Hg because it also is an indicator of dioxin, furans control. Additionally, there is no annual Hg test that could be eliminated, because the proposed rule does not require such a test.

The integrated sorbent trap monitoring of dioxin would entail use of a continuous automated sampling system and analysis of the sample according to EPA Reference Method 23 of appendix A–7 of 40 CFR part 60. The option to use a continuous automated sampling system would take effect on the date a final performance specification is published in the **Federal Register** or the date of approval of a site-specific monitoring plan. Integrated sorbent trap monitoring of dioxin would allow the discontinuation of fabric filter inlet temperature monitoring. Dioxin/furan sorbent flow rate monitoring could not be eliminated in favor of integrated sorbent trap monitoring of dioxin because it also is an indicator of Hg control. Additionally, there is no annual dioxin/furans test that could be eliminated, because the proposed rule does not require such a test.

If integrated sorbent trap monitoring of dioxin as well as multi-metals CEMS, Hg CEMS, or integrated sorbent trap Hg monitoring are used, Hg sorbent flow rate monitoring and dioxin/furans sorbent flow rate monitoring (in both cases activated carbon is the sorbent) could be eliminated. These parameter monitoring requirements were designed to ensure that controls continue to be operated in a manner to reduce dioxin/furans, metals and mercury emissions, and corresponding monitoring is not needed if all of these pollutants are directly measured on an ongoing basis. EPA requests comment on other parameter monitoring requirements that could be eliminated upon use of any or all of the optional CEMS discussed above. Table 11 of this preamble presents a summary of the CISWI operating parameters, the pollutants influenced by each parameter and alternative monitoring options for each parameter.

TABLE 11—SUMMARY OF CISWI OPERATING PARAMETERS, POLLUTANTS INFLUENCED BY EACH PARAMETER AND ALTERNATIVE MONITORING OPTIONS FOR EACH PARAMETER

Operating parameter/monitoring requirement (control device type)	Pollutants influenced by operating parameter	Alternative monitoring options
Maximum charge (feed) rate	All	None.
Minimum dioxin, furans sorbent flow rate (Activated carbon injection).	dioxin, furans	Integrated sorbent trap dioxin monitoring system (ISTDMS) and multi-metals CEMS, Hg CEMS or integrated sorbent trap mercury monitoring system (ISTMMS).
Minimum Hg sorbent flow rate (Activated carbon injection)	Hg.	
Minimum HCl sorbent flow rate (Dry scrubbers, spray dryers or duct sorbent injection).	HCl	HCl CEMS.
Minimum scrubber pressure drop/horsepower amperage (Wet scrubber).	PM, Cd, Pb, Hg	PM CEMS.
Minimum scrubber liquor flow rate (Wet scrubber)	HCl, PM, Cd, Pb, Hg, dioxin, furans.	HCl CEMS, PM CEMS, multi-metals CEMS, ISTDMS and ISTMMS.
Minimum scrubber liquor pH (Wet scrubber)	HCl	HCl CEMS.
Voltage and amperage of collection plates (ESP)	PM, Cd, Pb, Hg	PM CEMS.
Reagent flow rate and secondary chamber temperature (SNCR).	NO_X	NO_X CEMS.
Air pollution control device inspections	All	None.
Time of visible emissions from ash handling	PM	None.

Table 12 of this preamble presents a summary of the CISWI test methods and approved alternative compliance methods.

TABLE 12—SUMMARY OF CISWI TEST METHODS AND APPROVED ALTERNATIVE METHODS

Pollutant/parameter	Test method(s) [1]	Approved alternative method(s)	Comments
PM	Method 5, Method 29	PM CEMS	PM CEMS are optional for all sources in lieu of annual PM test (required for energy recovery units with design capacity greater than 250 MMBtu/hr).
CO	Method 10	CO CEMS	CO CEMS are optional for existing sources in lieu of annual CO test; CO CEMS are required for new sources.
HCl	Method 26 or Method 26A.	HCl CEMS	HCl CEMS are optional for all sources in lieu of annual HCl test.
Cd	Method 29	Multi-metals CEMS.	
Pb	Method 29	Multi-metals CEMS.	
Hg	Method 30B, Method 29.	Multi-metals CEMS, Hg CEMS (PS–12A), or integrated sorbent trap mercury monitoring system (PS–12 B or appendix K of Part 75).	
Dioxin, furans	Method 23	integrated sorbent trap dioxin monitoring system.	
Opacity	Method 22	Bag leak detection system or PM CEMS	Bag leak detection systems are required for units equipped with fabric filters.

TABLE 12—SUMMARY OF CISWI TEST METHODS AND APPROVED ALTERNATIVE METHODS—Continued

Pollutant/parameter	Test method(s) [1]	Approved alternative method(s)	Comments
Flue and exhaust gas analysis.	Method 3, 3A, or 3B ...	ASME PTC 19.10–1981 Part 10	
Opacity from ash handling.	Method 22	None	

[1] EPA Reference Methods in appendix A of 40 CFR part 60.

This proposal contains minimum data availability requirements for CEMS; generally, valid emissions data are required for a minimum of 85 percent of the hours per day, 90 percent of the hours per calendar quarter, and 95 percent of the hours per calendar year that the affected facility is operating and combusting solid waste (as that term is defined by the Administrator under RCRA). We seek comment on whether or not the rule should require valid emissions data from CEMS for all times that an affected facility is operated and on approaches to provide that data, *e.g.,* redundant CEMS, prescribed missing data procedures, owner- or operator-developed missing data procedures, or parametric monitoring.

3. Have the startup, shutdown and malfunction provisions changed?

This action also revises the provisions of the 2000 CISWI rule as it applies to periods of startup, shutdown and malfunction. This proposed revision affects all CISWI units, including units that were regulated by the 2000 CISWI rule and those units that are subject to this proposed rule. The revision of these provisions is a result of a Court decision that invalidated certain regulations related to startup, shutdown and malfunction in the General Provisions of Part 63 (*Sierra Club* v. *EPA,* 551 F.3d 1019 (D.C. Cir. 2008)). While the Court's ruling did not specifically address the legality of source category-specific SSM provisions adopted in the 2000 CISWI rule, the decision calls into question the legality of those provisions. As such, EPA is proposing to remove the exemption for SSM periods contained in the 2000 CISWI rule and the proposed emission standards summarized in this preamble would apply at all times.

We are not proposing a separate emission standard for the source categories at issue here that applies during periods of startup and shutdown. We determined that CISWI units will be able to meet the emission limits during periods of startup because most units use natural gas or clean distillate oil to start the unit and add waste once the unit has reached combustion temperatures. Emissions from burning natural gas or distillate fuel oil would generally be significantly lower than from burning solid wastes. Emissions during periods of shutdown are also generally significantly lower than emissions during normal operations because the materials in the incinerator will be almost fully combusted before shutdown occurs. Furthermore, the approach for establishing MACT floors for CISWI units ranked individual CISWI units based on actual performance for each pollutant and subcategory, with an appropriate accounting of emissions variability. Because we accounted for emissions variability and established appropriate averaging times to determine compliance with the standards, we believe we have adequately addressed any minor variability that may potentially occur during startup or shutdown.

Periods of startup, normal operations and shutdown are all predictable and routine aspects of a source's operations. However, by contrast, malfunction is defined as a "sudden, infrequent and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment or a process to operate in a normal or usual manner * * *." (40 CFR 60.2). EPA has determined that malfunctions should not be viewed as a distinct operating mode and, therefore, any emissions that occur at such times do not need to be factored into development of CAA Section 129 standards, which, once promulgated, apply at all times. It is reasonable to interpret Section 129 as not requiring EPA to account for malfunctions in setting emissions standards. For example, we note that CAA Section 129 uses the concept of "best performing" sources in defining MACT, the level of stringency that major source standards must meet. Applying the concept of "best performing" to a source that is malfunctioning presents difficulties. The goal of best performing sources is to operate in such a way as to avoid malfunctions of their units. Moreover, even if malfunctions were considered a distinct operating mode, we believe it would be impracticable to take malfunctions into account in setting CAA Section 129 standards for CISWI units. As noted above, by definition, malfunctions are sudden and unexpected events and it would be difficult to set a standard that takes into account the myriad different types of malfunctions that can occur across all sources. Finally, malfunctions can vary in frequency, degree and duration, further complicating standard setting.

For a source that fails to comply with the applicable CAA Section 129 standards as a result of a malfunction event, EPA would determine an appropriate response based on, among other things, the good faith efforts of the source to minimize emissions during malfunction periods, including preventative and corrective actions, as well as root cause analyses to ascertain and rectify excess emissions. EPA would also consider whether the source's failure to comply with the CAA Section 129 standard was, in fact, "sudden, infrequent, not reasonably preventable" and was not instead "caused in part by poor maintenance or careless operation." (40 CFR 60.2 (definition of malfunction)).

4. Delegation of Authority To Implement and Enforce These Provisions

We are proposing clarifications to the authorities that can be delegated or transferred to state, local and tribal air pollution control agencies in this rulemaking. In the past, there has been some confusion about what authorities can be delegated and exercised by state, local and tribal air pollution control agencies and which authorities must be retained by EPA. In some cases, state, local and tribal air pollution control agencies were making decisions, such as allowing waivers of some provisions of this subpart that cannot be delegated to those agencies. There is a list of authorities that must be retained by EPA in 40 CFR 60.2530. To this list, we propose to add the approval of alternative opacity emission limits referenced in 60.2105 which, in turn refer to general provisions in 60.11(e) and the approval of performance test and data reduction waivers under 40 CFR 60.8(b). These authorities may affect the stringency of the emissions standards or limitations which can only be amended by Federal rulemaking, thus they cannot be transferred to State, local or tribal air pollution control agencies. We are also adding 40 CFR 60.2542 to make the provisions regarding the implementation and enforcement authorities in both subparts CCCC and DDDD consistent. We are seeking comment on whether these or other authorities should be retained by EPA or delegated to State, local or tribal air pollution control agencies.

5. State Plans

We are proposing regulatory language to clarify how states and eligible tribes can fulfill their obligation under CAA Section 129(b)(2) in lieu of submitting a state plan for review and approval. We are adding 40 CFR 60.2541 that will clarify how states and eligible tribes can fulfill the obligation under Section 129(b)(2) by submitting an acceptable, as specified in 40 CFR 60.2541, written request for delegation of the Federal plan. Proposed 40 CFR 60.2541 lists specific requirements, such as a demonstration of adequate resources and legal authority to implement and enforce the Federal plan that must be met in order to receive delegation of the Federal plan. We are seeking comment on this provision.

V. Impacts of the Proposed Action

A. What are the primary air impacts?

We have estimated the potential emissions reductions from existing sources that may be realized through implementation of the proposed emission limits. However, we realize that some CISWI owners and operators are likely to determine that alternatives to waste incineration are viable, such as sending the waste to a landfill or MWC, if available. In fact, sources operating incinerators, burn-off ovens and small, remote incinerators, where energy recovery is not a goal, may find it most cost-effective to discontinue use of their CISWI unit altogether. Therefore, we have estimated emissions reductions attributable to existing sources complying with the proposed limits, as well as those reductions that would occur if the facilities with incinerators, burn-off ovens and small, remote incinerators decide to discontinue the use of their CISWI unit and use alternative waste disposal options.

For units combusting wastes for energy production, such as energy recovery units and waste-burning kilns, the decision to combust or not to combust waste will depend on several factors. One factor is the cost to replace the energy provided by the waste material with a traditional fuel, such as natural gas. Another factor would be whether the owner or operator is purchasing the waste or obtaining it at no cost from other generators, or if they are generating the waste on-site and will have to dispose of the materials in another fashion, such as landfills. Lastly, these units would have to compare the control requirements needed to meet the CISWI emission limits with those needed if they stop burning solid waste and are then subject to a NESHAP instead. As mentioned before, we have attempted to align the monitoring requirements for similar non-waste burning sources as closely as possible in an effort to make them consistent and to help sources make the cross-walk between waste and non-waste regulatory requirements as simple as possible.

The emissions reductions that would be achieved under this proposed rule using the concurrently proposed definition of solid waste under RCRA are presented in Table 13 of this preamble.

TABLE 13—EMISSIONS REDUCTIONS FOR MACT COMPLIANCE AND ALTERNATIVE DISPOSAL OPTIONS FOR EXISTING CISWI USING THE "PRIMARY APPROACH" EMISSION LIMITS CONCURRENTLY PROPOSED UNDER RCRA

Pollutant	Reductions achieved through meeting MACT (ton/yr)	Reductions achieved assuming incinerators, small, remote incinerators and burn-off ovens use alternative disposal (ton/yr) [a]
HCl	525	558
CO	23,610	23,570
Pb	5.9	6.0
Cd	5.4	5.4
Hg	0.13	0.14
PM (filterable)	1,720	1,760
Dioxin, furans	0.0002	0.00025
NO_X	1,260	1,450
SO_2	2,640	2,660
Total	29,770	30,000

[a] The estimated emission reduction does not account for any secondary impacts associated with alternate disposal of diverted energy recovery unit fuel.

As discussed earlier in this preamble, there is an "alternative approach" identified for consideration and comment in a concurrent notice under RCRA. The potential emissions reductions based on this "alternative approach" are presented in Table 14 of this preamble.

TABLE 14—POTENTIAL EMISSIONS REDUCTIONS FOR MACT COMPLIANCE AND ALTERNATIVE DISPOSAL OPTIONS FOR EXISTING CISWI USING POTENTIAL EMISSION LIMITS BASED ON THE "ALTERNATIVE APPROACH" IDENTIFIED FOR CONSIDERATION AND COMMENT IN A CONCURRENT NOTICE UNDER RCRA

Pollutant	Reductions achieved through meeting MACT (ton/yr)	Reductions achieved assuming incinerators, small, remote incinerators and burn-off ovens use alternative disposal (ton/yr) [a]
HCl	395	429
CO	128,120	128,070
Pb	3.4	3.4
Cd	4.2	4.3
Hg	1.2	1.2
PM (filterable)	19,280	19,320
Dioxin, furans	0.00003	0.00009
NO_X	341	522
SO_2	184	205
Total	148,330	148,560

[a] The estimated emission reduction does not account for any secondary impacts associated with alternate disposal of diverted energy recovery unit fuel.

Based on the results of our analysis for existing units and our experiences with other CAA Section 129 regulations, we do not anticipate that any new CISWI units will be constructed. As discussed earlier, many existing CISWI owners and operators may find that alternate disposal options are preferable to compliance with the proposed standards. Our experience with regulations for municipal waste combustors, HMIWI and, in fact, CISWI has shown that negative growth in the source category historically occurs upon implementation of CAA Section 129 standards. Since CISWI rules were promulgated in 2000 and have been in effect for existing sources since 2005, many existing units have closed. At promulgation in 2000, EPA estimated 122 units in the CISWI population. In comparison, the incinerator subcategory in this proposal, which would contain any such units subject to the 2000 CISWI rule, has 28 units. EPA is not aware of any construction of new units since 2000, so we do not believe there are any units that are currently subject to the 2000 CISWI NSPS. The revised CISWI rule is more stringent, so we expect this trend to continue. We would also expect the same to be true for the subcategories of units that would be newly affected by the proposed revised CISWI rules. Industrial or commercial operations considering waste disposal options for their facilities will likely choose not to construct new CISWI units and to use alternative waste disposal methods or alternative fuels that will not subject them to the CISWI rule. For example, tire-derived fuel from which the metal has been removed is not considered solid waste under the proposed definition of solid waste. Consequently, new cement kiln owners will assess their regulatory requirements under CISWI for burning whole tires or tire-derived fuel that does not have metals removed against the costs associated with removing the metal and complying with the applicable NESHAP instead of the CISWI rule. Our research suggests that metal removal is routinely practiced and would most likely be a viable option for new kiln owners so that they would not be subject to the CISWI regulations. Likewise, new sources could engineer their process to minimize waste generation in the first place, or to separate wastes so that the materials sent to a combustion unit would not meet the definition of solid waste to begin with. For waste that is generated, cost analyses have found that alternative waste disposal is generally available and less expensive. However, we request comment on whether new sources will likely be constructed. In case a facility deems waste combustion a suitable option and constructs a new CISWI unit, we have developed model CISWI unit emissions reduction estimates for each subcategory using the existing unit baseline and the new source emission limits. Table 15 of this preamble presents the model plant emissions reductions that would be expected for new sources.

TABLE 15—EMISSIONS REDUCTIONS ON A MODEL PLANT BASIS

Pollutant	Emission reduction for CISWI subcategory model Units (ton/yr unless otherwise noted)				
	Incinerator	Burn-off oven	Small, remote incinerator	Energy recovery unit	Waste-burning kiln
HCl	0.9	0.1	0.0	13.3	0.1
CO	1.0	0.5	0.3	597	1,844
Pb	0.04	0.0	0.0002	0.1	0.02
Cd	0.009	0.0	0.001	0.005	0.1
Hg	0.003	0.0	0.000002	0.002	0.0
PM (filterable)	3.4	0.1	0.0	46.3	0.0
Dioxin/furan (total mass)[1]	0.0	0.0	0.003	0.01	0.001
NO_X	9.6	0.8	0.0	133.9	1,242

TABLE 15—EMISSIONS REDUCTIONS ON A MODEL PLANT BASIS—Continued

Pollutant	Emission reduction for CISWI subcategory model Units (ton/yr unless otherwise noted)				
	Incinerator	Burn-off oven	Small, remote incinerator	Energy recovery unit	Waste-burning kiln
SO_2	6.8	0.1	0.0	60.2	115
Total	21.8	1.67	0.3	851	3,202

[1] Dioxin/furan estimates are given in lb/yr.

B. What are the water and solid waste impacts?

We anticipate affected sources will need to apply additional controls to meet the proposed emission limits. These controls may utilize water, such as wet scrubbers, which would need to be treated. We estimate an annual requirement of 68 million gallons per year of additional wastewater would be generated as a result of operating additional controls or increased sorbent use.

Likewise, the addition of PM controls or improvements to controls already in place will increase the amount of particulate collected that will require disposal. Furthermore, activated carbon injection may be utilized by some sources, which will result in additional solid waste needing disposal. The annual amounts of solid waste that would require disposal are anticipated to be approximately 1,760 tons/yr from PM capture and 10,860 tons/yr from activated carbon injection.

Perhaps the largest impact on solid waste would come from owners and operators who decide to discontinue the use of their CISWI unit and instead send waste to the landfill or MWC for disposal. Based on tipping fees and availability, we would expect most, if not all, of this diverted waste to be sent to a local landfill. As we discuss above, it may be that a good portion of the incinerators, burn-off ovens and small, remote incinerators would determine that alternative disposal is a better choice than compliance with the proposed standards. If this were the case for all of the units in these subcategories, we estimate that approximately 214,000 tons per year of waste would be diverted to a landfill.

As mentioned above, we do not anticipate any new CISWI units to be constructed. Therefore, there would be no water or solid waste impacts associated with controls for new units.

C. What are the energy impacts?

The energy impacts associated with meeting the proposed emission limits would consist primarily of additional electricity needs to run added or improved air pollution control devices. For example, increased scrubber pump horsepower may cause slight increases in electricity consumption and sorbent injection controls would likewise require electricity to power pumps and motors. By our estimate, we anticipate that an additional 271,455 MW-hours per year would be required for the additional and improved control devices.

As discussed earlier, there could be instances where owners and operators of energy recovery units and waste-burning kilns decide to cease burning waste materials. In these cases, the energy provided by the burning of waste would need to be replaced with a traditional fuel, such as natural gas. Assuming an estimate that 50 percent of the energy input to energy recovery units and kilns are from waste materials, an estimate of the energy that would be replaced with a traditional fuel if all existing units stopped burning waste materials, is approximately 56 TBtu/yr. Since we do not anticipate any new CISWI units to be constructed, there would be no energy impacts associated with control of new units.

D. What are the secondary air impacts?

For CISWI units adding controls to meet the proposed emission limits, we anticipate very minor secondary air impacts, comprising emissions from electric generating units needed to provide the electricity to power the emission control devices.

As discussed earlier, we believe it likely that the incinerators, burn-off ovens and small, remote incinerators may elect to discontinue the use of their CISWI unit and send the waste to the landfill or other disposal means. As we discussed in the solid waste impacts above, this could result in approximately 214,000 tons per year of waste going to landfills. By using EPA's Landfill Gas Estimation Model, we estimate that, over the 20-year expected life of a CISWI unit, the resulting methane generated by a landfill receiving the waste would be about 187,000 tons. If this landfill gas were combusted in a flare, assuming typical flare emission factors and landfill gas chlorine, Hg and sulfur concentrations, the following emissions would be expected: 38 tons of PM; 16 tons of HCl; 32 tons of SO_2; 1,724 tons of CO; 90 tons of NO_X; and about 3 lbs of Hg.

Here again, since we do not anticipate any new CISWI units, we do not expect any secondary air impacts associated with control of new units.

E. What are the cost and economic impacts?

We have estimated compliance costs for all existing units to add the necessary controls and monitoring equipment, and to implement the inspections, recordkeeping and reporting requirements to comply with the proposed CISWI standards. We have also analyzed the costs of alternative disposal for the subcategories that may have alternative options to burning waste, specifically for the incinerators, burn-off ovens and small, remote incinerators. In our analysis, we have selected the lowest cost alternative (*i.e.,* compliance or alternative disposal) for each facility. Based on this analysis, we anticipate an overall total capital investment of $574 million with an associated total annual cost of $216 million.

Under the proposed rule, EPA's economic model suggests the average national market-level variables (prices, production-levels, consumption, international trade) will not change significantly (*e.g.,* are less than 0.01 percent).

EPA performed a screening analysis for impacts on small entities by comparing compliance costs to sales/revenues (*e.g.,* sales and revenue tests). EPA's analysis found the tests were below 1 percent for small entities included in the screening analysis.

We do not anticipate any new CISWI units to be constructed. Therefore, we do not anticipate any costs associated with control of new units.

F. What are the benefits?

We estimated the monetized benefits of this proposed regulatory action to be $240 million to $580 million (2008$, 3 percent discount rate) in the implementation year (2015). The monetized benefits of the proposed regulatory action at a 7 percent discount rate are $210 million to $520 million (2008$). Using alternate relationships between $PM_{2.5}$ and premature mortality supplied by experts, higher and lower benefits estimates are plausible, but most of the expert-based estimates fall between these two estimates.[9] A summary of the monetized benefits estimates at discount rates of 3 percent and 7 percent is in Table 16 of this preamble.

TABLE 16—SUMMARY OF THE MONETIZED BENEFITS ESTIMATES FOR THE CISWI NSPS AND EG IN 2015

[millions of 2008$][1]

	Estimated emissions reductions (tons per year)	Total monetized benefits (3% discount rate)	Total monetized benefits (7% discount rate)
$PM_{2.5}$	660	$150 to $370	$140 to $330.
$PM_{2.5}$ Precursors			
SO_2	2,659	$78 to $190	$71 to $170.
NO_X	1,447	$7.0 to $17	$6.4 to $16.
Total		$240 to $580	$210 to $520.

[1] All estimates are for the implementation year (2015), and are rounded to two significant figures. All fine particles are assumed to have equivalent health effects, but the benefit-per-ton estimates vary between precursors because each ton of precursor reduced has a different propensity to form $PM_{2.5}$. The monetized benefits from reducing 24,000 tons of carbon monoxide, 560 tons of hydrochloric acid, 5.4 tons of cadmium, 6.0 tons of lead, 280 pounds of mercury, and 230 grams of total dioxins/furans, each year are not included in these estimates. In addition, the monetized benefits from reducing ecosystem effects and visibility impairment are not included.

These benefits estimates represent the total monetized human health benefits for populations exposed to less $PM_{2.5}$ in 2015 from controls installed to reduce air pollutants in order to meet these standards. These estimates are calculated as the sum of the monetized value of avoided premature mortality and morbidity associated with reducing a ton of $PM_{2.5}$ and $PM_{2.5}$ precursor emissions. To estimate human health benefits derived from reducing $PM_{2.5}$ and $PM_{2.5}$ precursor emissions, we utilized the general approach and methodology established in Fann et al. (2009).[10]

To generate the benefit-per-ton estimates, we used a model to convert emissions of direct $PM_{2.5}$ and $PM_{2.5}$ precursors into changes in ambient $PM_{2.5}$ levels and another model to estimate the changes in human health associated with that change in air quality. Finally, the monetized health benefits were divided by the emissions reductions to create the benefit-per-ton estimates. Even though we assume that all fine particles have equivalent health effects, the benefit-per-ton estimates vary between precursors because each ton of precursor reduced has a different propensity to form $PM_{2.5}$. For example, SO_X has a lower benefit-per-ton estimate than direct $PM_{2.5}$ because it does not form as much $PM_{2.5}$, thus the exposure would be lower and the monetized health benefits would be lower.

For context, it is important to note that the magnitude of the PM benefits is largely driven by the concentration response function for premature mortality. Experts have advised EPA to consider a variety of assumptions, including estimates based both on empirical (epidemiological) studies and judgments elicited from scientific experts, to characterize the uncertainty in the relationship between $PM_{2.5}$ concentrations and premature mortality. For this proposed rule, we cite two key empirical studies, one based on the American Cancer Society cohort study[11] and the extended Six Cities cohort study[12]. In the Regulatory Impact Analysis (RIA) for this proposed rule, which is available in the docket, we also include benefits estimates derived from expert judgments and other assumptions.

This analysis does not include the type of detailed uncertainty assessment found in the 2006 $PM_{2.5}$ NAAQS RIA because we lack the necessary air quality input and monitoring data to run the benefits model. However, the 2006 $PM_{2.5}$ NAAQS benefits analysis[13] provides an indication of the sensitivity of our results to various assumptions.

It should be emphasized that the monetized benefits estimates provided above do not include benefits from several important benefit categories, including reducing other air pollutants, ecosystem effects and visibility impairment. The benefits from reducing carbon monoxide and HAP have not been monetized in this analysis, including reducing 29,000 tons of CO, 590 tons of hydrochloric acid, 5.4 tons of Cd, 6.0 tons of lead and 280 pounds of Hg each year. Although we do not have sufficient information or modeling available to provide monetized estimates for this rulemaking, we include a qualitative assessment of the effects associated with these air pollutants in the RIA for this proposed rule, which is available in the docket.

The costs of this proposed rulemaking are estimated to be $216 million (2008$) in the implementation year and the monetized benefits are $240 million to $580 million (2008$, 3 percent discount rate) for that same year. The benefits at a 7 percent discount rate are $210 million to $520 billion (2008$). Thus, net benefits of this rulemaking are estimated at $19 million to $360 million (2008$, 3 percent discount rate) and $−2.4 million to $310 million (2008$, 7 percent discount rate). A summary of the monetized benefits, social costs and net benefits at discount rates of 3 percent and 7& is in Table 17 of this preamble.

[9] Roman et al, 2008. "Expert Judgment Assessment of the Mortality Impact of Changes in Ambient Fine Particulate Matter in the U.S." *Environ. Sci. Technol.,* 42, 7, 2268–2274.

[10] Fann, N., C.M. Fulcher, B.J. Hubbell. 2009. "The influence of location, source, and emission type in estimates of the human health benefits of reducing a ton of air pollution." *Air Qual Atmos Health* (2009) 2:169–176.

[11] Pope *et al.,* 2002. "Lung Cancer, Cardiopulmonary Mortality, and Long-term Exposure to Fine Particulate Air Pollution." Journal of the American Medical Association 287:1132–1141.

[12] Laden *et al.,* 2006. "Reduction in Fine Particulate Air Pollution and Mortality." *American Journal of Respiratory and Critical Care Medicine.* 173: 667–672.

[13] U.S. Environmental Protection Agency, 2006. Final Regulatory Impact Analysis: $PM_{2.5}$ NAAQS. Prepared by Office of Air and Radiation. October. Available on the Internet at *http://www.epa.gov/ttn/ecas/ria.html.*

TABLE 17—SUMMARY OF THE MONETIZED BENEFITS, SOCIAL COSTS, AND NET BENEFITS FOR THE CISWI NSPS AND EG IN 2015

[millions of 2008$][1]

	3% Discount rate	7% Discount rate
Proposed Option		
.		
Total Monetized Benefits[2]	$240 to $580	$210 to $520.
Total Social Costs[3]	$220	$220.
Net Benefits	$19 to $360	$−2.4 to $310.
Non-monetized Benefits.	24,000 tons of carbon monoxide. 560 tons of HCl. 5.4 tons of cadmium. 6.0 tons of lead. 280 pounds of mercury. 230 grams of total dioxins/furans. Health effects from NO_2 and SO_2 exposure. Ecosystem effects. Visibility impairment.	
Proposed Option with Alternate Solid Waste Definition		
Total Monetized Benefits[2]	$2,700 to $6,700	$2,500 to $6,000.
Total Social Costs[3]	$480	$480.
Net Benefits	$2,300 to $6,200	$2,000 to $5,600.
Non-monetized Benefits.	130,000 tons of carbon monoxide. 430 tons of HCl. 4.3 tons of cadmium. 3.4 tons of lead. 1.2 tons of mercury. 85 grams of total dioxins/furans Health effects from NO_2 and SO_2 exposure. Ecosystem effects. Visibility impairment.	

[1] All estimates are for the implementation year (2015), and are rounded to two significant figures.

[2] The total monetized benefits reflect the human health benefits associated with reducing exposure to $PM_{2.5}$ through reductions of directly emitted $PM_{2.5}$ and $PM_{2.5}$ precursors such as NO_X and SO_2. It is important to note that the monetized benefits include many but not all health effects associated with $PM_{2.5}$ exposure.

[3] The methodology used to estimate social costs for one year in the multimarket model using surplus changes results in the same social costs for both discount rates.

For more information on the benefits analysis, please refer to the RIA for this rulemaking, which is available in the docket.

VI. Relationship of the Proposed Action to Section 112(c)(6) of the CAA

Section 112(c)(6) of the CAA requires EPA to identify categories of sources of seven specified pollutants to assure that sources accounting for not less than 90 percent of the aggregate emissions of each such pollutant are subject to standards under CAA Section 112(d)(2) or 112(d)(4). EPA has identified CISWI as a source category that emits five of the seven CAA Section 112(c)(6) pollutants: polycyclic organic matter (POM), dioxins, furans, Hg and polychlorinated biphenyls (PCBs) (The POM emitted by CISWI is composed of seven polyaromatic hydrocarbons (7–PAH), 16 polyaromatic hydrocarbons (16–PAH) and extractable organic matter (EOM)). In the **Federal Register** notice *Source Category Listing for Section 112(d)(2) Rulemaking Pursuant to Section 112(c)(6) Requirements,* 63 FR 17838, 17849, Table 2 (1998), EPA identified source categories "subject to regulation" for purposes of CAA Section 112(c)(6) with respect to the CAA Section 112(c)(6) pollutants that CISWI emit. CISWI are solid waste incineration units currently regulated under CAA Section 129 and this proposal would subject additional sources to regulation under CAA Section 129. For purposes of CAA Section 112(c)(6), EPA has determined that standards promulgated under CAA Section 129 are substantively equivalent to those promulgated under CAA Section 112(d). (See *Id.* at 17845; see also 62 FR 33625, 33632 (1997).) As discussed in more detail below, the CAA Section 129 standards effectively control emissions of the five identified CAA Section 112(c)(6) pollutants. Further, since CAA Section 129(h)(2) precludes EPA from regulating these substantial sources of the five identified CAA Section 112(c)(6) pollutants under CAA Section 112(d), EPA cannot further regulate these emissions under that CAA Section. As a result, EPA considers emissions of these five pollutants from CISWI "subject to standards" for purposes of CAA Section 112(c)(6).

As required by the statute, the CAA Section 129 CISWI standards include numeric emission limitations for the nine pollutants specified in CAA Section 129(a)(4). The combination of waste segregation, good combustion practices and add-on air pollution control equipment (sorbent injection, fabric filters, wet scrubbers, or combinations thereof) effectively reduces emissions of the pollutants for which emission limits are required under CAA Section 129: Hg, dioxins, furans, Cd, Pb, PM, SO_2, HCl, CO and NO_X. Thus, the standards specifically require reduction in emissions of three of the CAA Section 112(c)(6) pollutants: dioxins, furans and Hg. As explained below, the air pollution controls necessary to comply with the requirements of the CISWI standards also effectively reduce emissions of the following CAA Section 112(c)(6) pollutants that are emitted from CISWI: POM and PCBs. Although the CAA Section 129 CISWI standards do not have separate, specific emissions standards for POM and PCBs, emissions of these two CAA Section 112(c)(6) pollutants are effectively controlled by the same control measures used to comply with the numerical emissions limits for the pollutants enumerated in CAA Section 129(a)(4). Specifically, as by-products of combustion, the formation of POM and PCBs is effectively reduced by the combustion and post-combustion practices required to comply with the CAA Section 129 standards. Any POM and PCBs that do form during combustion are further controlled by the various post-combustion CISWI controls. The add-on PM control systems (either fabric filter or wet scrubber) and activated carbon injection further reduce emissions of these organic pollutants and also reduce Hg emissions, as is evidenced by performance data for MWCs and another similar source category, HMIWI. Specifically, the post-MACT compliance tests at currently operating HMIWI that were also operational at the time of promulgation of the 1997 HMIWI MACT standards show that, for those units, the regulations reduced Hg emissions by about 60 percent and reduced dioxin and furans emissions by about 80 percent from pre-MACT levels. Moreover, similar controls have been demonstrated to effectively reduce emissions of POM and PCBs from MWCs. It is, therefore, reasonable to conclude that POM and PCB emissions would be substantially controlled at all CISWI units meeting the proposed emission limits. Thus, while the proposed rule does not identify specific numerical limits for POM and PCB, emissions of those pollutants are, for the reasons noted above, nonetheless "subject to regulation" for purposes of CAA Section 112(c)(6) of the CAA.

VII. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735; October 4, 1993), this action is a "significant regulatory action" because it will have an annual effect on the economy of $100 million or more. Accordingly, EPA submitted this action to the OMB for review under Executive Order 12866, and any changes made in response to OMB recommendations have been documented in the docket for this action. For information regarding the costs and benefits of this rule, please refer to Table 17 of this preamble.

B. Paperwork Reduction Act

The information collection requirements in this rule have been submitted for approval to the OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The ICR documents prepared by EPA have been assigned EPA ICR number 2384.01 for subpart CCCC, 40 CFR part 60 and 2385.01 for subpart DDDD, 40 CFR part 60.

The requirements in this proposed action result in industry recordkeeping and reporting burden associated with review of the amendments for all CISWI, and inspections of scrubbers, fabric filters and other air pollution control devices that may be used to meet the emission limits for all CISWI. Ongoing parametric monitoring requirements for ESPs, SNCR, activated carbon injection are also required of all CISWI units. Stack testing and development of new parameter limits would be necessary for CISWI that need to make performance improvements in order to meet the proposed emission limits and for CISWI that, prior to this proposed action, have not been required to demonstrate compliance with certain pollutants. Visual emissions tests would be required for all subcategories except waste-burning kilns on an annual basis. Energy recovery units would be required to continuously monitor opacity, and units larger than 250 MMBtu/hr would be required to monitor PM emissions using a PM CEMS. Waste-burning kilns would be required to continuously monitor Hg emissions using a Hg CEMS. Any new CISWI would also be required to continuously monitor CO emissions. The annual average burden associated with recordkeeping and reporting requirements for the EG over the first three years following promulgation of this proposed action is estimated to be 12,591 hours at a total annual labor cost of $498,230. The total annualized capital/startup costs and operation and maintenance (O&M) costs associated with the EG monitoring requirements, EPA Method 22 of appendix A–7 testing, initial stack testing, storage of data and reports and photocopying and postage over the three-year period of the ICR are estimated at $25,509,408 and $8,503,136 per year, respectively. (The annual inspection costs are included under the recordkeeping and reporting labor costs.) The annual average burden associated with the NSPS over the first three years following promulgation of this proposed action is estimated to be 0 hours at a total annual labor cost of $0, since we anticipate no new CISWI units to be constructed. Burden is defined at 5 CFR 1320.3(b).

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it currently displays a valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9.

To comment on the EPA's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden, EPA has established a public docket for this action, which includes these ICR documents, under Docket ID No. EPA–HQ–OAR–2003–0119. Submit any comments related to the ICR documents for this proposed action to EPA and OMB. *See* **ADDRESSES** section at the beginning of this action for where to submit comments to EPA. Send comments to OMB at the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, Attention: Desk Office for EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after June 4, 2010, a comment to OMB is best assured of having its full effect if OMB receives it by July 6, 2010. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedures Act or any other statute unless the Agency certifies that the proposed action will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small government organizations and small government jurisdictions.

For purposes of assessing the impacts of this proposed action on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (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 this proposed rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. The small entities directly regulated by this proposed rule are facilities engaged in industrial or commercial operations, such as paper and paperboard manufacturing and utility providers. The average cost-to-sales ratios for small companies are below 1 percent. The median ratios are less than 0.1 percent. Only one entity has a sales test that exceeds 3 percent and that unit provides wood-residue, natural gas-fired cogeneration (NAICS 221).

Although this proposed rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of this rule on small entities. We continue to be interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts. We invite comments on all aspects of the proposal and its impacts on small entities.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531–1538, requires Federal agencies, unless otherwise prohibited by law, to assess the effects of their regulatory actions on State, local and tribal governments and the private sector. This rule contains 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 one year. Accordingly, EPA has prepared under Section 202 of the UMRA a written statement which is summarized below.

1. Statutory Authority

As discussed previously in this preamble, the statutory authority for the proposed rule is Section 129 of the CAA. CAA Section 129 CISWI standards include numeric emissions limitations for the nine pollutants specified in CAA Section 129(a)(4). Section 129(a)(2) of the CAA directs EPA to develop standards based on MACT, which require existing and new major sources to control emissions of the nine pollutants.

In compliance with Section 205(a), we identified and considered a reasonable number of regulatory alternatives. The regulatory alternative upon which the rule is based is the least costly, most cost-effective alternative to achieve the statutory requirements of CAA Section 129.

2. Social Costs and Benefits

The RIA prepared for the proposed rule, including the EPA's assessment of costs and benefits, is detailed in the "Regulatory Impact Analysis: Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units" in the docket. Based on estimated compliance costs on all sources associated with the proposed rule and the predicted change in prices and production in the affected industries, the estimated social costs of the proposed rule are $216 million (2008 dollars). In the year of full implementation (2015), EPA estimates the monetized $PM_{2.5}$ benefits of the proposed NSPS and EG are $240 million to $580 million and $210 million to $520 million, at 3 percent and 7 percent discount rates respectively. All estimates are in 2008$. Using alternate relationships between $PM_{2.5}$ and premature mortality supplied by experts, higher and lower benefits estimates are plausible, but most of the expert-based estimates fall between these estimates. The benefits from reducing other air pollutants have not been monetized in this analysis, including reducing 24,000 tons of CO, 560 tons of HCl, 6 tons of Pb, 5.4 tons of Cd, 280 pounds of Hg, and 230 grams of total dioxins and furans each year. In addition, ecosystem benefits and visibility benefits have not been monetized in this analysis.

Exposure to CO can affect the cardiovascular system and the central nervous system. Emissions of NO_X can transform into PM, which can result in fatalities and many respiratory problems (such as asthma or bronchitis); and NO_X can also transform into ozone causing several respiratory problems to affected populations.

The net benefits for the NSPS and Emission Guidelines are $19 million to $360 million and −$2.4 million to $310 million, at 3 percent and 7 percent discount rates respectively. All estimates are in 2008$.

3. Future and Disproportionate Costs

The UMRA requires that we estimate, where accurate estimation is reasonably feasible, future compliance costs imposed by the rule and any disproportionate budgetary effects. Our estimates of the future compliance costs of the proposed rule are discussed previously in this preamble. We do not believe that there will be any disproportionate budgetary effects of the proposed rule on any particular areas of the country, State or local governments, types of communities (*e.g.,* urban, rural), or particular industry segments.

4. Effects on the National Economy

The UMRA requires that we estimate the effect of the proposed rule on the national economy. To the extent feasible, we must estimate the effect on productivity, economic growth, full employment, creation of productive jobs and international competitiveness of the U.S. goods and services if we determine that accurate estimates are reasonably feasible and that such effect is relevant and material. The nationwide economic impact of the proposed rule is presented in the "Regulatory Impact Analysis: Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units" in the docket. This analysis provides estimates of the effect of the proposed rule on most of the categories mentioned above. The results of the economic impact analysis were summarized previously in this preamble.

5. *Consultation With Government Officials*

The UMRA requires that we describe the extent of EPA's prior consultation with affected State, local and tribal officials, summarize the officials' comments or concerns and summarize our response to those comments or concerns. We have determined that the proposed rule contains no regulatory requirements that might significantly or uniquely affect small governments. Therefore, this rule is 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." "Policies that have federalism implications" are defined in the Executive Order to include regulations that 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."

This proposed rule does not have federalism implications. It 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. This proposed action 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 this rule.

In the spirit of Executive Order 13132 and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicits comment on this proposed rule from State and local officials.

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

This action does not have tribal implications, as specified in Executive Order 13175, (65 FR 67249; November 9, 2000). EPA is not aware of any CISWI in Indian country or owned or operated by Indian tribal governments. Thus, Executive Order 13175 does not apply to this action.

However, EPA specifically solicits additional comment on this proposed action from tribal officials and will conduct outreach to tribal environmental professionals in the proposal period via the National Tribal Air Association and other mechanisms.

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

EPA interprets Executive Order 13045 (62 FR 19885; April 23, 1997) as applying to those regulatory actions that concern health or safety risks, such that the analysis required under Section 5–501 of the Order has the potential to influence the regulation. This proposed action is not subject to Executive Order 13045 because it is based solely on technology performance.

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

This action is not a "significant energy action" as defined in Executive Order 13211 (66 FR 28355; May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. EPA estimates that the requirements in this proposed action would cause most CISWI in the energy recovery unit and waste-burning kiln subcategories to modify existing air pollution control devices (*e.g.,* increase the horsepower of their wet scrubbers) or install and operate new control devices, resulting in approximately 271,455 megawatt-hours per year of additional electricity being used. EPA estimates that many owners of CISWI units in the incinerator, burn-off oven and small, remote incinerator subcategories may stop operating CISWI units and use alternative waste disposal methods, thereby not requiring additional energy input for operation of control devices.

Given the negligible change in energy consumption resulting from this proposed action, EPA does not expect any significant price increase for any energy type. The cost of energy distribution should not be affected by this proposed action at all since the action would not affect energy distribution facilities. We also expect that any impacts on the import of foreign energy supplies, or any other adverse outcomes that may occur with regard to energy supplies would not be significant. We, therefore, conclude that if there were to be any adverse energy effects associated with this proposed action, they would be minimal.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 104–113 (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards (VCS) in its regulatory 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 and business practices) that are developed or adopted by VCS bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable VCS.

EPA conducted searches for the Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration units through Enhanced NSSN Database managed by the American National Standards Institute (ANSI). We also contacted VCS organizations and accessed and searched their databases.

This rulemaking involves technical standards. EPA has decided to use ASME PTC 19.10–1981, "Flue and Exhaust Gas Analyses," for its manual methods of measuring the oxygen or carbon dioxide content of the exhaust gas. These parts of ASME PTC 19.10–1981 are acceptable alternatives to EPA Methods 3B, 6, 7 and 7C. This standard is available from the American Society of Mechanical Engineers (ASME), 3 Park Avenue, New York, NY 10016–5990.

Another VCS, ASTM D6735–01, "Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources-Impinger Method," is an acceptable alternative to EPA Method 26A.

Another VCS, ASTM D6784–02, "Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)" is an acceptable alternative to EPA Method 29.

During the search, if the title or abstract (if provided) of the VCS described technical sampling and analytical procedures that are similar to EPA's reference method, EPA ordered a copy of the standard and reviewed it as a potential equivalent method. All potential standards were reviewed to determine the practicality of the VCS for this rule. This review requires significant method validation data which meets the requirements of EPA Method 301 for accepting alternative methods or scientific, engineering and policy equivalence to procedures in EPA reference methods. The EPA may reconsider determinations of impracticality when additional information is available for particular VCS.

The search identified 23 other VCS that were potentially applicable to this rule in lieu of EPA reference methods. After reviewing the available standards, EPA determined that 21 candidate VCS (ASTM D3154–00 (2006), ASME B133.9–1994 (2001), ISO10396:1993 (2007), ISO12039:2001, ASTM D5835–95 (2007), ASTM D6522–00 (2005), CAN/CSA Z223.2–M86 (1999), ISO 9096:1992 (2003), ANSI/ASME PTC–38–1980 (1985), ASTM D3685/D3685M–98 (2005), ISO 7934:1998, ISO 11632:1998, ASTM D1608–98 (2003), ISO11564:1998, CAN/CSA Z223.24–M1983, CAN/CSA Z223.21–M1978, ASTM D3162–94 (2005), EN 1948–3 (1996), EN 1911–1,2,3 (1998), EN 13211:2001, CAN/CSA Z223.26–M1987) identified for measuring emissions of pollutants or their surrogates subject to emission standards in the rule would not be practical due to lack of equivalency, documentation, validation data and other important technical and policy considerations.

Under 40 CFR 60.13(i) of the NSPS General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any required testing methods, performance specifications, or procedures in the final rule and any amendments.

EPA welcomes comments on this aspect of the proposed rulemaking and specifically invites the public to identify potentially applicable voluntary consensus standards and to explain why such standards should be used in this regulation.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes Federal executive policy on environmental justice (EJ). Its main provision directs Federal agencies, to the greatest extent practicable and permitted by law, to make EJ part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations, low-income, and tribal populations in the United States.

This proposed action establishes national emission standards for new and existing CISWI. The EPA estimates that there are approximately 176 such units, including incinerators, burn-off ovens, cement kilns and energy recovery units, covered by this rule. The proposed rule will reduce emissions of all the listed HAP emitted from this source. This includes emissions of cadmium (Cd), hydrogen chloride (HCl), lead (Pb), mercury (Hg), and chlorinated dioxin/furans. Adverse health effects from these pollutants include cancer, irritation of the lungs, skin, and mucus membranes; effects on the central nervous system, and damage to the kidneys), and acute health disorders. The rule will also result in substantial reductions of criteria pollutants such as carbon monoxide (CO), nitrogen oxides (NO_X), particulate matter (PM), and sulfur dioxide (SO_2). Sulfur dioxide and NO_2 are precursors for the formation of $PM_{2.5}$ and ozone. Reducing these emissions will reduce ozone and $PM_{2.5}$ formation and associated health effects, such as adult premature mortality, chronic and acute bronchitis, asthma, and other respiratory and cardiovascular diseases. (Please refer to the RIA contained in the docket for this rulemaking.)

Pursuant to Executive Order 12898, EPA has undertaken to determine the aggregate demographic makeup of the communities near affected sources. This analysis used "proximity-to-a-source" to identify the populations considered to be living near affected sources, such that they have notable exposures to current emissions from these sources. In this approach, EPA reviewed the distributions of different socio-demographic groups in the locations of the expected emission reductions from this rule. The review identified those census blocks within a circular distance of three miles of affected sources and determined the demographic and socio-economic composition (*e.g.*, race, income, education, *etc.*) of these census blocks. The radius of three miles (or approximately five kilometers) has been used in other demographic analyses focused on areas around potential sources. [14, 15, 16, 17] In addition, air modeling experience has shown that beyond three miles, the influence of an individual source of emissions can generally be considered to be small, both in absolute terms and relative to the influence of other sources (assuming there are other sources in the area, as is typical in urban areas). EPA's demographic analysis has shown that these areas tend to have lower proportions of Whites and American Indians, higher proportions of African-Americans, Hispanics and "Other and Multi-racial" populations, and higher proportions of families with incomes below the poverty level.[18]

Based on the fact that the rule does not allow emission increases, the EPA has determined that the proposed rule will not have disproportionately high and adverse human health or environmental effects on minority, low-income, or tribal populations. However, to the extent that any minority, low income, or tribal subpopulation is disproportionately impacted by the current emissions as a result of the proximity of their homes to these sources, that subpopulation also stands to see increased environmental and health benefit from the emissions reductions called for by this rule.

EPA defines "Environmental Justice" to include meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and polices. To promote meaningful involvement, EPA has developed a communication and outreach strategy to ensure that interested communities have access to this proposed rule, are aware of its content, and have an opportunity to comment during the comment period. During the comment period, EPA will publicize the rulemaking via EJ newsletters, tribal newsletters, EJ listservs, and the internet, including the Office of Policy, Economics, and Innovation's (OPEI) Rulemaking Gateway Web site (*http://yosemite.epa.gov/opei/RuleGate.nsf/*). EPA will also provide general rulemaking fact sheets (*e.g.,* why is this important for my community) for EJ community groups and conduct conference calls with interested communities. In addition, State and Federal permitting requirements will provide State and local governments and members of affected communities the opportunity to provide comments on the permit conditions associated with permitting the sources affected by this rulemaking.

[14] U.S. GAO (Government Accountability Office). *Demographics of People Living Near Waste Facilities.* Washington DC: Government Printing Office; 1995.

[15] Mohai P, Saha R. "Reassessing Racial and Socio-economic Disparities in Environmental Justice Research". *Demography.* 2006;43(2): 383–399.

[16] Mennis J. "Using Geographic Information Systems to Create and Analyze Statistical Surfaces of Populations and Risk for Environmental Justice Analysis". *Social Science Quarterly,* 2002;83(1):281–297.

[17] Bullard RD, Mohai P, Wright B, Saha R, *et al. Toxic Waste and Race at Twenty 1987–2007.* United Church of Christ. March, 2007.

[18] The results of the demographic analysis are presented in "Review of Environmental Justice Impacts", April 2010, a copy of which is available in the docket.

List of Subjects in 40 CFR Part 60

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

Dated: April 29, 2010.

Lisa Jackson,

Administrator.

For the reasons stated in the preamble, title 40, chapter I, of the Code of Federal Regulations is proposed to be 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.*

2. Revise the heading for subpart CCCC to read as follows:

Subpart CCCC—Standards of Performance for Commercial and Industrial Solid Waste Incineration Units

3. Section 60.2005 is amended by revising the first sentence to read as follows:

§ 60.2005 When does this subpart become effective?

This subpart takes effect on [THE DATE 6 MONTHS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]. * * *

4. Section 60.2015 is amended by revising paragraph (a) to read as follows:

§ 60.2015 What is a new incineration unit?

(a) A new incineration unit is an incineration unit that meets any of the criteria specified in paragraph (a)(1) through (a)(2) of this section.

(1) A commercial and industrial solid waste incineration unit that commenced construction after June 4, 2010.

(2) A commercial and industrial solid waste incineration unit that commenced reconstruction or modification after [THE DATE 6 MONTHS AFTER PUBLICATION OF THE FINAL RULE].

* * * * *

5. Section 60.2020 is amended by:

a. Revising the introductory text.

b. Removing and reserving paragraph (b).

c. Revising paragraph (c).

d. Removing and reserving paragraphs (j), (k), and (l).

e. Revising paragraphs (g), (m) and (n).

f. Removing paragraph (o).

§ 60.2020 What combustion units are exempt from this subpart?

This subpart exempts the types of units described in paragraphs (a), (c) through (i) and (m) of this section, but some units are required to provide notifications. Air curtain incinerators are exempt from the requirements in this subpart except for the provisions in §§ 60.2242, 60.2250, and 60.2260.

* * * * *

(b) [Reserved]

(c) *Municipal waste combustion units.* Incineration units that are regulated under subpart Ea of this part (Standards of Performance for Municipal Waste Combustors); subpart Eb of this part (Standards of Performance for Large Municipal Waste Combustors); subpart Cb of this part (Emission Guidelines and Compliance Time for Large Municipal Combustors); AAAA of this part (Standards of Performance for Small Municipal Waste Combustion Units); or subpart BBBB of this part (Emission Guidelines for Small Municipal Waste Combustion Units). * * *

* * * * *

(g) Hazardous waste combustion units. Units for which you are required to get a permit under section 3005 of the Solid Waste Disposal Act.

* * * * *

(j) [Reserved]

(k) [Reserved]

(l) [Reserved]

(m) *Sewage treatment plants.* Incineration units regulated under subpart O of this part (Standards of Performance for Sewage Treatment Plants).

(n) *Sewage sludge incineration units.* Incineration units combusting sewage sludge for the purpose of reducing the volume of the sewage sludge by removing combustible matter. Sewage sludge incineration unit designs may include fluidized bed and multiple hearth.

§ 60.2025 [Removed]

6. Section 60.2025 is removed.

7. Section 60.2030 is amended by:

a. Revising paragraph (c) introductory text.

b. Removing and reserving paragraph (c)(5).

c. Adding paragraphs (c)(8) and (c)(9).

§ 60.2030 Who implements and enforces this subpart?

* * * * *

(c) The authorities that will not be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (4) and (c)(6) through (9) of this section.

* * * * *

(5) [Reserved]

* * * * *

(8) Approval of alternative opacity emission limits in § 60.2105 under § 60.11(e)(6) through (e)(8).

(9) Performance test and data reduction waivers under § 60.2125(j).

8. Section 60.2045 is revised to read as follows:

§ 60.2045 Who must prepare a siting analysis?

(a) You must prepare a siting analysis if you plan to commence construction of an incinerator after December 1, 2000.

(b) You must prepare a siting analysis for CISWI units that commenced construction after June 4, 2010 or that commenced reconstruction or modification after [THE DATE 6 MONTHS AFTER PUBLICATION OF THE FINAL RULE].

(c) You must prepare a siting analysis if you are required to submit an initial application for a construction permit under 40 CFR part 51, subpart I, or 40 CFR part 52, as applicable, for the reconstruction or modification of your CISWI unit.

9. Section 60.2070 is amended by revising paragraph (c)(1)(vii) to read as follows:

§ 60.2070 What are the operator training and qualification requirements?

* * * * *

(c) * * *

(1) * * *

(vii) Actions to prevent malfunctions or to prevent conditions that may lead to malfunctions.

* * * * *

10. Section 60.2085 is amended by revising paragraph (d) to read as follows:

§ 60.2085 How do I maintain my operator qualification?

* * * * *

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

* * * * *

11. Section 60.2105 is revised to read as follow:

§ 60.2105 What emission limitations must I meet and by when?

(a) You must meet the emission limitations for each unit, including bypass stack or vent, specified in table 1 of this subpart or tables 5 through 9 of this subpart by the applicable date in § 60.2140. You must be in compliance with the emission limitations of this subpart that apply to you at all times.

(b) An incinerator that commenced construction after November 30, 1999 but no later than June 4, 2010 or that commenced reconstruction or modification on or after June 1, 2001 but no later than [THE DATE 6 MONTHS AFTER PUBLICATION OF THE FINAL RULE] must meet the more stringent emission limit for the respective pollutant in table 1 of this subpart or table 6 of subpart DDDD.

(c) Units that do not use wet scrubbers must maintain opacity to less than or equal to the percent opacity (1-hour block average) specified in table 1 of this subpart or tables 5 through 9 of this subpart, as applicable.

12. Section 60.2110 is amended by adding paragraphs (d), (e) and (f) to read as follows:

§ 60.2110 What operating limits must I meet and by when?

* * * * *

(d) If you use an electrostatic precipitator to comply with the emission limitations, you must measure the voltage and amperage of the electrostatic precipitator collection plates during the particulate matter performance test. Calculate the average value of these parameters for each test run. The minimum test run averages establish your site-specific minimum voltage and amperage operating limits for the electrostatic precipitator.

(e) If you use activated carbon injection to comply with the emission limitations, you must measure the mercury sorbent flow rate during the mercury performance test. The minimum mercury sorbent flow rate test run averages establish your site-specific minimum mercury sorbent flow rate.

(f) If you use selective noncatalytic reduction to comply with the emission limitations, you must establish the maximum charge rate, the minimum secondary chamber temperature (if applicable to your CISWI unit) and the minimum reagent flow rate as site-specific operating parameters during the initial nitrogen oxides performance test to determine compliance with the emissions limits.

13. Section 60.2115 is revised to read as follows:

§ 60.2115 What if I do not use a wet scrubber, activated carbon injection, selective noncatalytic reduction, or an electrostatic precipitator to comply with the emission limitations?

(a) If you use an air pollution control device other than a wet scrubber, activated carbon injection, selective noncatalytic reduction, or an electrostatic precipitator or limit emissions in some other manner to comply with the emission limitations under § 60.2105, you must petition the EPA Administrator for specific operating limits to be established during the initial performance test and continuously monitored thereafter. You must not conduct the initial performance test until after the petition has been approved by the Administrator. Your petition must include the 5 items listed in paragraphs (1) through (5) of this section.

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

(2) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters and how limits on these parameters will serve to limit emissions of regulated pollutants.

(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the operating limits on these parameters.

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.

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

(b) For energy recovery units that do not use a wet scrubber, you must install, operate, certify and maintain a continuous opacity monitoring system according to the procedures in § 60.2145 by the compliance date specified in § 60.2105.

§ 60.2120 [Removed]

14. Section 60.2120 is removed.

15. Section 60.2125 is amended by revising paragraph (c) and adding paragraphs (h) through (n) to read as follows:

§ 60.2125 How do I conduct the initial and annual performance test?

* * * * *

(c) All performance tests must be conducted using the minimum run duration specified in table 1 of this subpart or tables 5 through 9 of this subpart.

* * * * *

(h) Method 22 of appendix A–7 of this part must be used to determine compliance with the fugitive ash emission limit in table 1 of this subpart or tables 5 through 9 of this subpart.

(i) Except as specified in paragraphs (i)(1),(i)(2), (i)(3), and (i)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under Section 114 of the Clean Air Act, the owner or operator of such facility must conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(1) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator must notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification must occur as soon as practicable.

(2) The owner or operator must provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test must be conducted as soon as practicable after the force majeure occurs.

(3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(4) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (i)(1), (2), and (3) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(j) Performance tests must be conducted and data reduced in accordance with the test methods and procedures contained in this subpart unless the Administrator does one of the following.

(1) Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology.

(2) Approves the use of an equivalent method.

(3) Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance.

(4) Waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard.

(5) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph is construed to abrogate the Administrator's authority to require testing under Section 114 of the Clean Air Act.

(k) Performance tests must be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator must make available to the Administrator such records as may be necessary to determine the conditions of the performance tests.

(l) The owner or operator of an affected facility must provide the Administrator at least 30 days' prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days' notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility must notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days' prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.

(m) The owner or operator of an affected facility must provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes the following.

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures.

(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

(n) Unless otherwise specified in this subpart, each performance test must consist of three separate runs using the applicable test method. Each run must be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

16. Section 60.2130 is revised to read as follows:

§ 60.2130 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 or tables 5 through 9 of this subpart.

17. Section 60.2135 is revised to read as follows:

§ 60.2135 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 § 60.2105 and § 60.2125 to determine compliance with the emission limitations in table 1 of this subpart or tables 5 through 9 of this subpart and to establish operating limits using the procedures in § 60.2110 or § 60.2115. The initial performance test must be conducted using the test methods listed in table 1 of this subpart or tables 5 through 9 of this subpart and the procedures in § 60.2125. The use of the bypass stack during a performance test shall invalidate the performance test.

18. Section 60.2141 is added to read as follows:

§ 60.2141 By what date must I conduct the initial air pollution control device inspection?

(a) The initial air pollution control device inspection must be conducted within 60 days after installation of the control device and the associated CISWI unit reaches the charge rate at which it will operate, but no later than 180 days after the device's initial startup.

(b) Within 10 operating days following an air pollution control device inspection, all necessary repairs must be completed unless the owner or operator obtains written approval from the State agency establishing a date whereby all necessary repairs of the designated facility must be completed.

19. Section 60.2145 is amended by revising paragraph (a) and (b) and adding paragraphs (d) through (t) to read as follows:

§ 60.2145 How do I demonstrate continuous compliance with the emission limitations and the operating limits?

(a) You must conduct an annual performance test for particulate matter, hydrogen chloride, fugitive ash and opacity for each CISWI unit as required under § 60.2125 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 or tables 5 through 9 of this subpart and the procedures in § 60.2125.

(b) You must continuously monitor the operating parameters specified in § 60.2110 or established under § 60.2115. Operation above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Three-hour rolling average values are used to determine compliance (except for baghouse leak detection system alarms) unless a different averaging period is established under § 60.2115. Operating limits are confirmed or reestablished during performance tests.

* * * * *

(d) For energy recovery units, incinerators, burn-off ovens and small remote units, you must perform annual visual emissions test for ash handling.

(e) For energy recovery units, you must conduct an annual performance test for opacity (except where particulate matter continuous emissions monitoring system are used for compliance) and the pollutants (except for carbon monoxide) listed in table 1 of this subpart or tables 5 through 9 of this subpart.

(f) For energy recovery units, demonstrate continuous compliance with the carbon monoxide emission limit using a carbon monoxide continuous emissions monitoring system according to the following requirements:

(1) Determine continuous compliance with the carbon monoxide emissions limit using a 24-hour block average, calculated as specified in section 12.4.1 of EPA Reference Method 19 of appendix A–7 of this part.

(2) Operate the carbon monoxide continuous emissions monitoring system in accordance with the requirements of performance specification 4B of appendix B of this part and quality assurance procedure one of appendix F of this part.

(g) For energy recovery units with design capacities greater than 250 MMBtu/hr, demonstrate continuous compliance with the particulate matter emissions limit using a particulate matter continuous emissions monitoring system according to the procedures in § 60.2165(n).

(h) For waste-burning kilns, you must conduct an annual performance test for particulate matter, hydrogen chloride, fugitive ash and opacity (as mentioned in § 60.2145(a)), nitrogen oxides and sulfur dioxide as listed in table 7 of this subpart. You must determine compliance with the mercury emissions limit using a mercury continuous emissions monitoring system according to the following requirements:

(1) Operate a continuous emission monitor in accordance with performance specification 12A of 40 CFR part 60, appendix B or a sorbent trap based integrated monitor in accordance with performance specification 12B of 40 CFR part 60, appendix B or appendix K of 40 CFR part 75. The duration of the performance test must be a calendar month. For each calendar month in which the waste-burning kiln operates, hourly mercury concentration data and stack gas volumetric flow rate data must be obtained.

(2) Owners or operators using a mercury continuous emissions monitoring system must install, operate, calibrate and maintain an instrument for continuously measuring and recording the exhaust gas flow rate to the

atmosphere according to the requirements of performance specification 12A of 40 CFR part 60, appendix B and quality assurance procedure 5 of 40 CFR part 60, appendix F, upon promulgation.

(3) The owner or operator of a waste-burning kiln must demonstrate initial compliance by operating a mercury continuous emissions monitoring system while the raw mill of the in-line kiln/raw mill is under normal operating conditions and while the raw mill of the in-line kiln/raw mill is not operating.

(i) If you use an air pollution control device to meet the emission limitations in this subpart, you must conduct an initial and annual inspection of the air pollution control device. The inspection must include, at a minimum, the following:

(1) Inspect air pollution control device(s) for proper operation.

(2) Develop a site-specific monitoring plan according to the requirements in paragraph (j) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 60.13(i).

(j) For each continuous monitoring system required in this section, you must develop and submit to the EPA Administrator for approval a site-specific monitoring plan according to the requirements of this paragraph (j) that addresses paragraphs (j)(1)(i) through (vi) of this section.

(1) You must submit this site-specific monitoring plan at least 60 days before your initial performance evaluation of your continuous monitoring system.

(i) Installation of the continuous monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.,* on or downstream of the last control device).

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer and the data collection and reduction systems.

(iii) Performance evaluation procedures and acceptance criteria (*e.g.,* calibrations).

(iv) Ongoing operation and maintenance procedures in accordance with the general requirements of § 60.11(d).

(v) Ongoing data quality assurance procedures in accordance with the general requirements of § 60.13.

(vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 60.7(b), (c), (c)(1), (c)(4), (d), (e), (f) and (g).

(2) You must conduct a performance evaluation of each continuous monitoring system in accordance with your site-specific monitoring plan.

(3) You must operate and maintain the continuous monitoring system in continuous operation according to the site-specific monitoring plan.

(k) If you have an operating limit that requires the use of a flow measurement device, you must meet the requirements in paragraphs (j) and (k)(1) through (4) of this section.

(1) Locate the flow sensor and other necessary equipment in a position that provides a representative flow.

(2) Use a flow sensor with a measurement sensitivity of 2 percent of the flow rate.

(3) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) Conduct a flow sensor calibration check at least semiannually.

(l) If you have an operating limit that requires the use of a pressure measurement device, you must meet the requirements in paragraphs (j) and (l)(1) through (6) of this section.

(1) Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure.

(2) Minimize or eliminate pulsating pressure, vibration and internal and external corrosion.

(3) Use a gauge with a minimum tolerance of 1.27 centimeters of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(4) Check pressure tap pluggage daily.

(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(m) If you have an operating limit that requires the use of a pH measurement device, you must meet the requirements in paragraphs (j) and (m)(1) through (3) of this section.

(1) Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.

(n) If you have an operating limit that requires the use of equipment to monitor voltage and secondary current (or total power input) of an electrostatic precipitator, you must use voltage and secondary current monitoring equipment to measure voltage and secondary current to the electrostatic precipitator.

(o) If you have an operating limit that requires the use of equipment to monitor sorbent injection rate (*e.g.,* weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (j) and (o)(1) through (3) of this section.

(1) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.

(2) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(3) At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.

(p) If you elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain and continuously operate a bag leak detection system as specified in paragraphs (p)(1) through (8) of this section.

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA–454/R–98–015, September 1997.

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

(5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(7) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.

(8) Where multiple bag leak detectors are required, the system's

instrumentation and alarm may be shared among detectors.

(q) For facilities using a continuous emissions monitoring system to demonstrate compliance with the sulfur dioxide emission limit, compliance with the sulfur dioxide emission limit may be demonstrated by using the continuous emission monitoring system specified in § 60.2165 to measure sulfur dioxide and calculating a 24-hour daily geometric average emission concentration using EPA Reference Method 19, sections 4.3 and 5.4, as applicable. The sulfur dioxide continuous emission monitoring system must be operated according to performance specification 2 in appendix B of this part and must follow the procedures and methods specified in this paragraph (q). For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide continuous emission monitoring systems should be no greater than 20 percent of the mean value of the reference method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the reference method and the continuous emission monitoring systems, whichever is greater.

(1) During each relative accuracy test run of the continuous emission monitoring system required by performance specification 2 in appendix B of this part, sulfur dioxide and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (q)(1)(i) and (q)(1)(ii) of this section.

(i) For sulfur dioxide, EPA Reference Method 6, 6A, or 6C, or as an alternative ANSI/ASME PTC–19.10–1981 Flue and Exhaust Gas Analysis [Part 10, Instruments and Apparatus] (incorporated by reference, see § 60.17], must be used.

(ii) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or as an alternative ANSI/ASME PTC–19.10–1981 Flue and Exhaust Gas Analysis [Part 10, Instruments and Apparatus] (incorporated by reference, see § 60.17] as applicable, must be used.

(2) The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device must be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the unit subject to this rule. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device must be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the unit subject to this rule.

(3) Quarterly accuracy determinations and daily calibration drift tests must be performed in accordance with procedure 1 in appendix F of this part.

(4) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks and/or zero and span adjustments, emissions data must be obtained by using other monitoring systems as approved by EPA or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 85 percent of the hours per day, 90 percent of the hours per calendar quarter, and 95 percent of the hours per calendar year that the affected facility is operated and combusting solid waste (as that term is defined by the Administrator pursuant to Subtitle D of RCRA).

(r) For facilities using a continuous emissions monitoring system to demonstrate continuous compliance with the nitrogen oxides emission limit, compliance with the nitrogen oxides emission limit may be demonstrated by using the continuous emission monitoring system specified in § 60.2165 to measure nitrogen oxides and calculating a 24-hour daily arithmetic average emission concentration using EPA Reference Method 19, section 4.1. The nitrogen oxides continuous emission monitoring system must be operated according to performance specification 2 in appendix B of this part and must follow the procedures and methods specified in paragraphs (r)(1) through (r)(5) of this section.

(1) During each relative accuracy test run of the continuous emission monitoring system required by performance specification 2 of appendix B of this part, nitrogen oxides and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (r)(1)(i) and (r)(1)(ii) of this section.

(i) For nitrogen oxides, EPA Reference Method 7, 7A, 7C, 7D, or 7E must be used.

(ii) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or as an alternative ANSI/ASME PTC–19.10–1981—Flue and Exhaust Gas Analysis [Part 10, Instruments and Apparatus] (incorporated by reference, *see* § 60.17] as applicable, must be used.

(2) The span value of the continuous emission monitoring system must be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of unit.

(3) Quarterly accuracy determinations and daily calibration drift tests must be performed in accordance with procedure 1 in appendix F of this part.

(4) When nitrogen oxides continuous emissions monitoring system data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emissions data must be obtained using other monitoring systems as approved by EPA or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 85 percent of the hours per day, 90 percent of the hours per calendar quarter, and 95 percent of the hours per calendar year the unit is operated and combusting solid waste.

(5) The owner or operator of an affected facility may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels must be established during the initial performance test according to the procedures and methods specified in paragraphs (r)(5)(i) through (r)(5)(iv) of this section. This relationship may be re-established during performance compliance tests.

(i) The fuel factor equation in Method 3B must be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3, 3A, or 3B, or as an alternative ANSI/ASME PTC–19.10–1981—Flue and Exhaust Gas Analysis [Part 10, Instruments and Apparatus] (incorporated by reference, see § 60.17) as applicable, must be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.

(ii) Samples must be taken for at least 30 minutes in each hour.

(iii) Each sample must represent a 1-hour average.

(iv) A minimum of 3 runs must be performed.

(s) For facilities using a continuous emissions monitoring system to demonstrate continuous compliance with any of the emission limits of this subpart, you must complete the following:

(1) Demonstrate compliance with the appropriate emission limit(s) using a 24-hour block average, calculated following the procedures in EPA Method 19 of appendix A–7 of this part.

(2) Operate all continuous emissions monitoring systems in accordance with

the applicable procedures under appendices B and F of this part.

(t) Use of the bypass stack at any time is an emissions standards deviation for particulate matter, HCl, Pb, Cd and Hg.

20. Section 60.2150 is revised to read as follows:

§ 60.2150 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.

21. Section 60.2151 is added to read as follows:

§ 60.2151 By what date must I conduct the annual air pollution control device inspection?

On an annual basis (no more than 12 months following the previous annual air pollution control device inspection), you must complete the air pollution control device inspection as described in § 60.2141.

22. Section 60.2155 is revised to read as follows:

§ 60.2155 May I conduct performance testing less often?

(a) You can test less often for particulate matter, hydrogen chloride, fugitive ash, or opacity, provided:

(1) You have test data for at least 3 consecutive years.

(2) The test data results for particulate matter, hydrogen chloride, fugitive ash, or opacity is less than 75 percent of the emissions or opacity limit.

(3) There are no changes in the operation of the affected source or air pollution control equipment that could affect emissions. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the third year and no more than 36 months following the previous performance test.

(b) If your CISWI unit continues to emit less than 75 percent of the emission limitation for particulate matter, hydrogen chloride, fugitive ash, or opacity, and there are no changes in the operation of the affected facility or air pollution control equipment that could increase emissions, you may choose to conduct performance tests for these pollutants every third year, but each test must be within 36 months of the previous performance test.

(c) If a performance test shows emissions exceeded 75 percent or greater of the emission or opacity limitation for particulate matter, hydrogen chloride, fugitive ash, or opacity, you must conduct annual performance tests for that pollutant until all performance tests over a 3-year period are within 75 percent of the applicable emission limitation.

23. Section 60.2165 is amended by revising paragraph (c) and adding paragraphs (d) through (p) to read as follows:

§ 60.2165 What monitoring equipment must I install and what parameters must I monitor?

* * * * *

(c) If you are using something other than a wet scrubber, activated carbon, selective non-catalytic reduction, or an electrostatic precipitator to comply with the emission limitations under § 60.2105, 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 § 60.2115.

(d) If you use activated carbon injection to comply with the emission limitations in this subpart, you must measure the minimum mercury sorbent flow rate once per hour.

(e) If you use selective noncatalytic reduction to comply with the emission limitations, you must complete the following:

(1) Following the date on which the initial performance test is completed or is required to be completed under § 60.2125, whichever date comes first, ensure that the affected facility does not operate above the maximum charge rate, or below the minimum secondary chamber temperature (if applicable to your CISWI unit) or the minimum reagent flow rate measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times. Operating parameter limits do not apply during performance tests.

(2) Operation of the affected facility above the maximum charge rate, below the minimum secondary chamber temperature and below the minimum reagent flow rate simultaneously constitute a violation of the nitrogen oxides emissions limit.

(f) If you use an electrostatic precipitator to comply with the emission limits of this subpart, you must monitor the voltage and amperage of the electrostatic precipitator collection plates and maintain the 3-hour block averages at or above the operating limits established during the mercury or particulate matter performance test.

(g) To demonstrate continuous compliance with the hydrogen chloride emissions limit, a facility may substitute use of a hydrogen chloride continuous emissions monitoring system for conducting the hydrogen chloride annual performance test, monitoring the minimum hydrogen chloride sorbent flow rate and monitoring the minimum scrubber liquor pH.

(h) To demonstrate continuous compliance with the particulate matter emissions limit, a facility may substitute use of a particulate matter continuous emissions monitoring system for conducting the particulate matter annual performance test and monitoring the minimum pressure drop across the wet scrubber, if applicable.

(i) To demonstrate continuous compliance with the dioxin/furan emissions limit, a facility may substitute use of a continuous automated sampling system for the dioxin/furan annual performance test. You must record the output of the system and analyze the sample according to EPA Method 23 of appendix A–7 of this part. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to dioxin/furan from continuous monitors is published in the **Federal Register**. The owner or operator who elects to continuously sample dioxin/furan emissions instead of sampling and testing using EPA Method 23 of appendix A–7 must install, calibrate, maintain and operate a continuous automated sampling system and must comply with the requirements specified in § 60.58b(p) and (q).

(j) To demonstrate continuous compliance with the mercury emissions limit, a facility may substitute use of a continuous automated sampling system for the mercury annual performance test. You must record the output of the system and analyze the sample at set intervals using any suitable determinative technique that can meet appropriate performance criteria. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to mercury from monitors is published in the **Federal Register**. The owner or operator who elects to continuously sample mercury emissions instead of sampling and testing using EPA Reference Method 29 of appendix A–8 of this part, ASTM D6784–02 (2008), Standard Test Method for Elemental, Oxidized, Particle Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), or an approved alternative method for measuring mercury emissions, must install, calibrate, maintain and operate a continuous automated sampling system and must comply with the requirements specified in § 60.58b(p) and (q).

(k) To demonstrate continuous compliance with the nitrogen oxides emissions limit, a facility may substitute use of a continuous emissions monitoring system for the nitrogen oxides annual performance test to demonstrate compliance with the nitrogen oxides emissions limits.

(1) Install, calibrate, maintain and operate a continuous emission monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system. The requirements under performance specification 2 of appendix B of this part, the quality assurance procedure one of appendix F of this part and the procedures under § 60.13 must be followed for installation, evaluation and operation of the continuous emission monitoring system.

(2) Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under § 60.2125, compliance with the emission limit for nitrogen oxides required under § 60.52b(d) must be determined based on the 24-hour daily arithmetic average of the hourly emission concentrations using continuous emission monitoring system outlet data. The 1-hour arithmetic averages must be expressed in parts per million by volume (dry basis) and used to calculate the 24-hour daily arithmetic average concentrations. The 1-hour arithmetic averages must be calculated using the data points required under § 60.13(e)(2).

(l) To demonstrate continuous compliance with the sulfur dioxide emissions limit, a facility may substitute use of a continuous automated sampling system for the sulfur dioxide annual performance test to demonstrate compliance with the sulfur dioxide emissions limits.

(1) Install, calibrate, maintain and operate a continuous emission monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system. The requirements under performance specification 2 of appendix B of this part, the quality assurance requirements of procedure one of appendix F of this part and procedures under § 60.13 must be followed for installation, evaluation and operation of the continuous emission monitoring system.

(2) Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under § 60.2125, compliance with the sulfur dioxide emission limit may be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data. The 1-hour arithmetic averages must be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 24-hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The 1-hour arithmetic averages must be calculated using the data points required under § 60.13(e)(2).

(m) For energy recovery units that do not use a wet scrubber, you must install, operate, certify and maintain a continuous opacity monitoring system according to the procedures in paragraphs (m)(1) through (5) of this section by the compliance date specified in § 60.2105. Energy recovery units that use a particulate matter continuous emissions monitoring system to demonstrate initial and continuing compliance according to the procedures in § 60.2165(n) are not required to install a continuous opacity monitoring system and must perform the annual performance tests for opacity consistent with § 60.2145(e).

(1) Install, operate and maintain each continuous opacity monitoring system according to performance specification 1 of 40 CFR part 60, appendix B.

(2) Conduct a performance evaluation of each continuous opacity monitoring system according to the requirements in § 60.13 and according to PS–1 of 40 CFR part 60, appendix B.

(3) As specified in § 60.13(e)(1), each continuous opacity monitoring system must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) Reduce the continuous opacity monitoring system data as specified in § 60.13(h)(1).

(5) Determine and record all the 6-minute averages (and 1-hour block averages as applicable) collected.

(n) For energy recovery units with design capacities greater than 250 MMBtu/hr, in place of particulate matter testing with EPA Method 5, an owner or operator must install, calibrate, maintain and operate a continuous emission monitoring system for monitoring particulate matter emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who continuously monitors particulate matter emissions instead of conducting performance testing using EPA Method 5 must install, calibrate, maintain and operate a continuous emission monitoring system and must comply with the requirements specified in paragraphs (n)(1) through (n)(14) of this section.

(1) Notify the Administrator one (1) month before starting use of the system.

(2) Notify the Administrator one (1) month before stopping use of the system.

(3) The monitor must be installed, evaluated and operated in accordance with the requirements of performance specification 11 of appendix B of this part and quality assurance requirements of procedure two of appendix F of this part and § 60.13.

(4) The initial performance evaluation must be completed no later than 180 days after the date of initial startup of the affected facility, as specified under § 60.2125 or within 180 days of notification to the Administrator of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 5 performance tests, whichever is later.

(5) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established according to the procedures and methods specified in § 60.2145(r)(5)(i) through (r)(5)(iv).

(6) The owner or operator of an affected facility must conduct an initial performance test for particulate matter emissions as required under § 60.2125. Compliance with the particulate matter emission limit must be determined by using the continuous emission monitoring system specified in paragraph (n) of this section to measure particulate matter and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19, section 4.1.

(7) Compliance with the particulate matter emission limit must be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data.

(8) At a minimum, valid continuous monitoring system hourly averages must be obtained as specified in § 60.2170(e).

(9) The 1-hour arithmetic averages required under paragraph (n)(7) of this section must be expressed in milligrams per dry standard cubic meter corrected to 7 percent oxygen (or carbon dioxide) (dry basis) and must be used to calculate the 24-hour daily arithmetic average emission concentrations. The 1-hour arithmetic averages must be calculated

using the data points required under § 60.13(e)(2).

(10) All valid continuous emission monitoring system data must be used in calculating average emission concentrations even if the minimum continuous emission monitoring system data requirements of paragraph (n)(8) of this section are not met.

(11) The continuous emission monitoring system must be operated according to performance specification 11 in appendix B of this part.

(12) During each relative accuracy test run of the continuous emission monitoring system required by performance specification 11 in appendix B of this part, particulate matter and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the following test methods.

(i) For particulate matter, EPA Reference Method 5 must be used.

(ii) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable must be used.

(13) Quarterly accuracy determinations and daily calibration drift tests must be performed in accordance with procedure 2 in appendix F of this part.

(14) When particulate matter emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emissions data must be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 85 percent of the hours per day, 90 percent of the hours per calendar quarter, and 95 percent of the hours per calendar year that the affected facility is operated and combusting waste.

(o) For energy recovery units, operate the carbon monoxide continuous emissions monitoring system in accordance with the requirements of performance specification 4B of appendix B of this part and quality assurance procedure 1 of appendix F of this part.

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

24. Section 60.2170 is revised to read as follows:

§ 60.2170 Is there a minimum amount of monitoring data I must obtain?

(a) You must conduct all monitoring at all times the CISWI unit is operating.

(b) You must use all the data collected during all periods in assessing compliance with the operating limits.

(c) For continuous emission monitoring systems for measuring sulfur dioxide emissions, valid continuous monitoring system hourly averages must be obtained as specified in paragraphs (c)(1) and (c)(2) of this section for a minimum of 85 percent of the hours per day, 90 percent of the hours per calendar quarter, and 95 percent of the hours per calendar year that the affected facility is combusting waste. All valid continuous emission monitoring system data must be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of this paragraph (c) are not met.

(1) At least 2 data points per hour must be used to calculate each 1-hour arithmetic average.

(2) Each sulfur dioxide 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(d) For continuous emission monitoring systems for measuring nitrogen oxides emissions, valid continuous emission monitoring system hourly averages must be obtained as specified in paragraphs (d)(1) and (d)(2) of this section for a minimum of 85 percent of the hours per day, 90 percent of the hours per calendar quarter, and 95 percent of the hours per calendar year that the affected facility is combusting waste. All valid continuous emission monitoring system data must be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of this paragraph (d) are not met.

(1) At least 2 data points per hour must be used to calculate each 1-hour arithmetic average.

(2) Each nitrogen oxides 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(e) For continuous emission monitoring systems for measuring particulate matter emissions, valid continuous monitoring system hourly averages must be obtained as specified in paragraphs (e)(1) and (e)(2) of this section for a minimum of 85 percent of the hours per day, 90 percent of the hours per calendar quarter, and 95 percent of the hours per calendar year that the affected source is combusting waste. All valid continuous emission monitoring system data must be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of this paragraph (e) are not met.

(1) At least 2 data points per hour must be used to calculate each one-hour arithmetic average.

(2) Each particulate matter one-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the one-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

25. Section 60.2175 is amended by:

a. Revising the introductory text.

b. Revising paragraphs (b)(5) and (e).

c. Removing and reserving paragraphs (c) and (d).

d. Adding paragraphs (o) through (u).

§ 60.2175 What records must I keep?

You must maintain the items (as applicable) as specified in paragraphs (a), (b), and (e) through (u) of this section for a period of at least 5 years:

* * * * *

(b) * * *

(5) For affected CISWI units that establish operating limits for controls other than wet scrubbers under § 60.2110(d) through (f) or § 60.2115, you must maintain data collected for all operating parameters used to determine compliance with the operating limits.

* * * * *

(c) [Reserved]

(d) [Reserved]

(e) Identification of calendar dates and times for which data show a deviation from the operating limits in table 2 of this subpart or a deviation from other operating limits established under § 60.2110(d) through (f) or § 60.2115 with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.

* * * * *

(o) Maintain records of the annual air pollution control device inspections that are required for each CISWI unit subject to the emissions limits in table 1 of this subpart or tables 5 through 9 of this subpart, any required maintenance and any repairs not completed within 10 days of an inspection or the timeframe established by the State regulatory agency.

(p) For continuously monitored pollutants or parameters, you must document and keep a record of the following parameters measured using continuous monitoring systems.

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

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

(3) All 1-hour average concentrations of nitrogen oxides emissions.

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

(5) All one-hour average concentrations of particulate matter emissions.

(6) All one-hour average concentrations of mercury emissions.

(7) All one-hour average concentrations of hydrogen chloride emissions.

(q) Records indicating use of the bypass stack, including dates, times and durations.

(r) If you choose to stack test less frequently than annually, consistent with § 60.2155(a) through (c), you must keep annual records that document that your emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year.

(s) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(t) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(u) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 60.11(d), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

26. Section 60.2210 is amended by revising paragraph (e) and adding paragraphs (k) through (o) to read as follows:

§ 60.2210 What information must I include in my annual report?

* * * * *

(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.

* * * * *

(k) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 60.11(d), including actions taken to correct a malfunction.

(l) For each deviation from an emission or operating limitation that occurs for a CISWI unit for which you are not using a CMS to comply with the emission or operating limitations in this subpart, the annual report must contain the following information.

(1) The total operating time of the CISWI unit at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(m) If there were periods during which the continuous monitoring system, including the continuous emission monitoring system, was out of control as specified in paragraph (o) of this section, the annual report must contain the following information for each deviation from an emission or operating limitation occurring for a CISWI unit for which you are using a continuous monitoring system to comply with the emission and operating limitations in this subpart.

(1) The date and time that each malfunction started and stopped.

(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each continuous monitoring system was out-of-control, including start and end dates and hours and descriptions of corrective actions taken.

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of continuous monitoring system downtime during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total operating time of the CISWI unit at which the continuous monitoring system downtime occurred during that reporting period.

(8) An identification of each parameter and pollutant that was monitored at the CISWI unit.

(9) A brief description of the CISWI unit.

(10) A brief description of the continuous monitoring system.

(11) The date of the latest continuous monitoring system certification or audit.

(12) A description of any changes in continuous monitoring system, processes, or controls since the last reporting period.

(n) If there were periods during which the continuous monitoring system, including the continuous emission monitoring system, was not out of control as specified in paragraph (o) of this section, a statement that there were not periods during which the continuous monitoring system was out of control during the reporting period.

(o) A continuous monitoring system is out of control if any of the following occur.

(1) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard.

(2) The continuous monitoring system fails a performance test audit (*e.g.,* cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.

(3) The continuous opacity monitoring system calibration drift exceeds two times the limit in the applicable performance specification in the relevant standard.

27. Section 60.2220 is amended by revising paragraph (c) and removing paragraphs (e) and (f).

§ 60.2220 What must I include in the deviation report?

* * * * *

(c) Durations and causes of the following:

(1) Each deviation from emission limitations or operating limits and your corrective actions.

(2) Bypass events and your corrective actions.

* * * * *

28. Section 60.2235 is revised to read as follows:

§ 60.2235 In what form can I submit my reports?

(a) Submit initial, annual and deviation reports electronically or in paper format, postmarked on or before the submittal due dates.

(b) After December 31, 2011, within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with this subpart, the owner or operator of the affected facility must submit the test data to EPA by entering the data electronically into EPA's WebFIRE database through EPA's Central Data Exchange. The owner or operator of an affected source shall enter the test data into EPA's database using the Electronic Reporting Tool or other compatible electronic spreadsheet. Only performance evaluation data collected using methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

29. Section 60.2242 is revised to read as follows:

§ 60.2242 Am I required to apply for and obtain a title V operating permit for my unit?

Yes. Each CISWI unit and air curtain incinerator affected by this subpart must operate pursuant to a permit issued under Section 129(e) and title V of the Clean Air Act.

30. Section 60.2250 is revised to read as follows:

§ 60.2250 What are the emission limitations for air curtain incinerators?

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) and (b) of this section.

(a) Maintain opacity to less than or equal to 10 percent opacity (as determined by the average of three one-hour blocks consisting of 10 six minute average opacity values), except as described in paragraph (b) of this section.

(b) Maintain opacity to less than or equal to 35 percent opacity (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values) during the startup period that is within the first 30 minutes of operation.

31. Section 60.2260 is amended by revising paragraph (d) to read as follows:

§ 60.2260 What are the recordkeeping and reporting requirements for air curtain incinerators?

* * * * *

(d) You must submit the results (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values) 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.

* * * * *

32. Section 60.2265 is amended by:

a. Adding definitions for "Burn-off oven", "Bypass stack", "Energy recovery unit", "Incinerator", "Kiln", "Minimum voltage or amperage", "Opacity", "Raw mill", "Small remote incinerator", "Solid waste incineration unit" and "Waste-burning kiln", in alphabetical order.

b. Revising the definitions for "Commercial and industrial solid waste incineration (CISWI) unit" and "Deviation".

c. Removing the definition for "Agricultural waste", "Commercial or industrial waste", "Malfunction" and "Solid waste".

§ 60.2265 What definitions must I know?

* * * * *

Burn-off oven means any rack reclamation unit, part reclamation unit, or drum reclamation unit.

Bypass stack means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

* * * * *

Commercial and industrial solid waste incineration (CISWI) unit means any distinct operating unit of any commercial or industrial facility that combusts any solid waste pursuant to Subtitle D of RCRA. While not all CISWI units will include all of the following components, a CISWI unit includes, but is not limited to, the solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the solid waste hopper (if applicable) and extends through two areas: The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and the combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The CISWI unit includes all ash handling systems connected to the bottom ash handling system.

* * * * *

Deviation means any instance in which an affected source subject to this subpart, 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 affected source required to obtain such a permit.

* * * * *

Energy recovery unit means a combustion unit combusting solid waste (as that term is defined by the Administrator pursuant to Subtitle D of RCRA) for energy recovery. Energy recovery units include units that would be considered boilers and process heaters if they did not combust solid waste.

* * * * *

Incinerator means any furnace used in the process of combusting solid waste (as that term is defined by the Administrator pursuant to Subtitle D of RCRA) for the purpose of reducing the volume of the waste by removing combustible matter. Incinerator designs include single chamber, two-chamber and cyclonic burn barrels.

* * * * *

Kiln means an oven or furnace, including any associated preheater or precalciner devices, used for processing a substance by burning, firing or drying. Kilns include cement kilns, that produce clinker by heating limestone and other materials for subsequent production of Portland cement and lime kilns that produce quicklime by calcination of limestone.

* * * * *

Minimum voltage or amperage means 90 percent of the lowest test-run average voltage or amperage to the electrostatic precipitator measured from the pressure drop and liquid flow rate monitors during the most recent particulate matter or mercury performance test demonstrating compliance with the applicable emission limits.

* * * * *

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

* * * * *

Raw mill means a ball and tube mill, vertical roller mill or other size reduction equipment, that is not part of an in-line kiln/raw mill, used to grind feed to the appropriate size. Moisture may be added or removed from the feed during the grinding operation. If the raw mill is used to remove moisture from feed materials, it is also, by definition, a raw material dryer. The raw mill also includes the air separator associated with the raw mill.

* * * * *

Small, remote incinerator means an incinerator that combusts solid waste (as that term is defined by the Administrator pursuant to Subtitle D of RCRA) and has the capacity to combust 1 ton per day or less solid waste and is more than 50 miles driving distance to the nearest municipal solid waste landfill.

Solid waste incineration unit means a distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments or the general public (including single and multiple residences, hotels and motels). Such term does not include incinerators or other units required to have a permit under section 3005 of the Solid Waste Disposal Act. The term "solid waste incineration unit" does not include (A) materials recovery facilities (including primary or secondary smelters) which combust waste for the primary purpose of recovering metals, (B) qualifying small power production facilities, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 769(17)(C)), or qualifying cogeneration facilities, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), which burn homogeneous waste (such as units which burn tires or used oil, but not including refuse-derived fuel) for the production of electric energy or in the case of qualifying cogeneration facilities which burn homogeneous waste for the production of electric energy and steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes, or (C) 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.

* * * * *

Waste-burning kiln means a kiln that is heated, in whole or in part, by combusting solid waste (as that term is defined by the Administrator pursuant to Subtitle D of RCRA).

* * * * *

33. The heading of table 1 to subpart CCCC is revised to read as follows:

Table 1 to Subpart CCCC of Part 60–Emission Limitations for CISWI Units for Which Construction Is Commenced After November 30, 1999 but no later than June 4, 2010 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 but no later than [THE DATE 6 MONTHS AFTER PUBLICATION OF THE FINAL RULE].

* * * * *

34. Table 4 of subpart CCCC is amended by revising the entries for "Annual Report" and "Emission limitation or operating limit deviation report."

TABLE 4 TO SUBPART CCCC OF PART 60—SUMMARY OF REPORTING REQUIREMENTS [a]

Report	Due date	Contents	Reference
* *	* *	* *	*
Annual report	No later than 12 months following the submission of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report.	• Name and address • Statement and signature by responsible official. • Date of report. • Values for the operating limits. • Highest recorded 3-hour average and the lowest 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported. • If a performance test was conducted during the reporting period, the results of the test. • If a performance test was not conducted during the reporting period, a statement that the requirements of § 60.2155(a) or (b) were met. • Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours but less than 2 weeks.	§§ 60.2205 and 60.2210.
Emission limitation or operating limit deviation report.	By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year.	• Dates and times of deviation • Averaged and recorded data for those dates. • Duration and causes of each deviation and the corrective actions taken. • Copy of operating limit monitoring data and any test reports. • Dates, times and causes for monitor downtime incidents.	§ 60.2215 and 60.2220.
* *	* *	* *	*

[a] This table is only a summary, see the referenced sections of the rule for the complete requirements.

34. Table 5 to Subpart CCCC is added to read as follows:

TABLE 5 TO SUBPART CCCC OF PART 60—EMISSION LIMITATIONS FOR INCINERATORS THAT COMMENCED CONSTRUCTION AFTER JUNE 4, 2010 OR THAT COMMENCED RECONSTRUCTION OR MODIFICATION AFTER [THE DATE 6 MONTHS AFTER PUBLICATION OF THE FINAL RULE]

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Cadmium	0.00066 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.
Carbon monoxide	1.4 parts per million dry volume.	24-hour block average	Carbon Monoxide Continuous Emissions Monitoring System (performance specification 4A of this part, using a RA of 0.5 ppm instead of 5 ppm as specified in 13.2. For the cylinder gas audit, +/− 15% or 0.5 ppm, whichever is greater.)
Dioxins/furans (total mass basis).	0.0093 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 of appendix A–7 of this part).
Dioxins/furans (toxic equivalency basis).	0.00073 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 of appendix A–7 of this part).
Hydrogen chloride	0.074 parts per million dry volume.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 26A of appendix A–8 of this part).
Lead	0.0013 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.
Mercury	0.00013 milligrams per dry standard cubic meter.	3-run average (collect enough volume to meet a detection limit data quality objective of 0.03 ug/dscm).	Performance test (Method 30B of appendix A–8 of this part).
Opacity	1%	Three 1-hour blocks consisting of ten 6-minute average opacity values.	Performance test (Method 9 of appendix A–4 of this part).
Oxides of nitrogen	19 parts per million dry volume.	3-run average (1-hour minimum sample time per run).	Performance test (Method 7E of appendix A–4 of this part). Use a span gas with a concentration of 100 ppm or less.
Particulate matter (filterable)	0.0077 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 5 or 29 of appendix A–3 or appendix A–8 of this part).
Sulfur dioxide	1.5 parts per million dry volume.	3-run average (1-hour minimum sample time per run).	Performance test (Method 6 or 6c of appendix A–4 of this part. Use a maximum allowable drift of 0.2 ppm and a span gas with a concentration of 5 ppm or less.
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period.	Three 1-hour observation periods.	Visible emission test (Method 22 of appendix A–7 of this part).

[a] All emission limitations (except for opacity) are measured at 7% oxygen, dry basis at standard conditions.

36. Table 6 to Subpart CCCC is added to read as follows:

TABLE 6 TO SUBPART CCCC OF PART 60—EMISSION LIMITATIONS FOR ENERGY RECOVERY UNITS THAT COMMENCED CONSTRUCTION AFTER JUNE 4, 2010 OR THAT COMMENCED RECONSTRUCTION OR MODIFICATION AFTER [THE DATE 6 MONTHS AFTER PUBLICATION OF THE FINAL RULE]

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Cadmium	0.00012 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.
Carbon monoxide	3 parts per million dry volume	24 hour block average	Carbon monoxide Continuous Emissions Monitoring System (performance specification 4A of this part, using a RA of 0.5 ppm instead of 5 ppm as specified in 13.2. For the cylinder gas audit, +/− 15% or 0.5 ppm, whichever is greater.)
Dioxins/furans (total mass basis).	0.034 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 of appendix A–7 of this part).

TABLE 6 TO SUBPART CCCC OF PART 60—EMISSION LIMITATIONS FOR ENERGY RECOVERY UNITS THAT COMMENCED CONSTRUCTION AFTER JUNE 4, 2010 OR THAT COMMENCED RECONSTRUCTION OR MODIFICATION AFTER [THE DATE 6 MONTHS AFTER PUBLICATION OF THE FINAL RULE]—Continued

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Dioxins/furans (toxic equivalency basis).	0.0027 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 of appendix A–7 of this part).
Hydrogen chloride	0.17 parts per million dry volume.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 26A of appendix A–8 of this part).
Lead	0.0012 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.
Mercury	0.00013 milligrams per dry standard cubic meter.	3-run average (collect enough volume to meet a detection limit data quality objective of 0.03 µg/dscm).	Performance test (Method 30B of appendix A–8 of this part).
Opacity	1%	6-minute averages; 1-hour block average for units that operate dry control systems.	Continuous opacity monitoring (performance specification 1 of appendix B of this part), unless equipped with a wet scrubber.
Oxides of nitrogen	75 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 7E of appendix A–4 of this part).
Particulate matter (filterable)	4.4 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 5 or 29 of appendix A–3 or appendix A–8 of this part) if the unit has a design capacity less than or equal to 250 MMBtu/hr; or PM CEMS (performance specification 11 of appendix B of this part) if the unit has a design capacity greater than 250 MMBtu/hr.
Sulfur dioxide	4.1 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6c of appendix A–4 of this part. Use a span gas with a concentration of 20 ppm or less.
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period.	Three 1-hour observation periods.	Visible emission test (Method 22 of appendix A–7 of this part).

[a] All emission limitations (except for opacity) are measured at 7% oxygen, dry basis at standard conditions.

37. Table 7 to Subpart CCCC is added to read as follows:

TABLE 7 TO SUBPART CCCC OF PART 60—EMISSION LIMITATIONS FOR WASTE-BURNING KILNS THAT COMMENCED CONSTRUCTION AFTER JUNE 4, 2010 OR THAT COMMENCED RECONSTRUCTION OR MODIFICATION AFTER [THE DATE 6 MONTHS AFTER PUBLICATION OF THE FINAL RULE]

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Cadmium	0.00030 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.
Carbon monoxide	36 parts per million dry volume.	24-hour block average	Carbon monoxide Continuous Emissions Monitoring System (performance specification 4A of this part, using a RA of 1 ppm instead of 5 ppm as specified in 13.2. For the cylinder gas audit, +/− 15% or 0.5 ppm, whichever is greater.)
Dioxins/furans (total mass basis).	0.00035 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 of appendix A–7 of this part).
Dioxins/furans (toxic equivalency basis).	0.000028 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 of appendix A–7 of this part).
Hydrogen chloride	1.5 parts per million dry volume.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 26A of appendix A–8 of this part).
Lead	0.00078 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.

TABLE 7 TO SUBPART CCCC OF PART 60—EMISSION LIMITATIONS FOR WASTE-BURNING KILNS THAT COMMENCED CONSTRUCTION AFTER JUNE 4, 2010 OR THAT COMMENCED RECONSTRUCTION OR MODIFICATION AFTER [THE DATE 6 MONTHS AFTER PUBLICATION OF THE FINAL RULE]—Continued

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Mercury	0.024 milligrams per dry standard cubic meter.	24-hour block average	Mercury CEMS (performance specification 12A of appendix B of this part or mercury sorbent trap method specified in appendix K of part 75)
Opacity	1%	Three 1-hour blocks consisting of ten 6-minute average opacity values.	Performance test (Method 9 of appendix A–4 of this part).
Oxides of nitrogen	140 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 7E of appendix A–4 of this part).
Particulate matter (filterable)	1.8 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 5 or 29 of appendix A–3 or appendix A–8 of this part).
Sulfur dioxide	3.6 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6c of appendix A–4 of this part. Use a span gas with a concentration of 20 ppm or less.
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period.	Three 1-hour observation periods.	Visible emission test (Method 22 of appendix A–7 of this part).

[a] All emission limitations (except for opacity) are measured at 7% oxygen, dry basis at standard conditions.

38. Table 8 to Subpart CCCC is added to read as follows:

TABLE 8 TO SUBPART CCCC OF PART 60—EMISSION LIMITATIONS FOR BURN-OFF OVENS THAT COMMENCED CONSTRUCTION AFTER JUNE 4, 2010 OR THAT COMMENCED RECONSTRUCTION OR MODIFICATION AFTER [THE DATE 6 MONTHS AFTER PUBLICATION OF THE FINAL RULE]

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Cadmium	0.0032 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.
Carbon monoxide	74 parts per million dry volume.	24 hour block average	Carbon monoxide Continuous Emissions Monitoring System (performance specification 4A of this part, using a RA of 2 ppm instead of 5 ppm as specified in 13.2. For the cylinder gas audit,±±15% or 0.5 ppm, whichever is greater.)
Dioxins/furans (total mass basis).	0.011 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 of appendix A–7 of this part).
Dioxins/furans (toxic equivalency basis).	0.00086 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 of appendix A–7 of this part).
Hydrogen chloride	17.6 parts per million dry volume.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 26A of appendix A–8 of this part).
Lead	0.029 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.
Mercury	0.0033 milligrams per dry standard cubic meter.	3-run average (collect enough volume to meet a detection limit data quality objective of 0.3 ug/dscm).	Performance test (Method 30B of appendix A–8 of this part).
Opacity	2%	Three 1-hour blocks consisting of ten 6-minute average opacity values.	Performance test (Method 9 of appendix A–4 of this part).
Oxides of nitrogen	16 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 7E of appendix A–4 of this part). Use a span gas with a concentration of 100 ppm or less.
Particulate matter (filterable)	28 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 5 or 29 of appendix A–3 and appendix A–8 of this part).

TABLE 8 TO SUBPART CCCC OF PART 60—EMISSION LIMITATIONS FOR BURN-OFF OVENS THAT COMMENCED CONSTRUCTION AFTER JUNE 4, 2010 OR THAT COMMENCED RECONSTRUCTION OR MODIFICATION AFTER [THE DATE 6 MONTHS AFTER PUBLICATION OF THE FINAL RULE]—Continued

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Sulfur dioxide	1.5 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6c of appendix A–4 of this part. Use a maximum allowable drift of 0.2 ppm and a span gas with concentration of 5 ppm or less.
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period.	Three 1-hour observation periods.	Visible emission test (Method 22 of appendix A–7 of this part).

[a] All emission limitations (except for opacity) are measured at 7% oxygen, dry basis at standard conditions.

39. Table 9 to Subpart CCCC is added to read as follows:

TABLE 9 TO SUBPART CCCC OF PART 60—EMISSION LIMITATIONS FOR SMALL, REMOTE INCINERATORS THAT COMMENCED CONSTRUCTION AFTER JUNE 4, 2010 OR THAT COMMENCED RECONSTRUCTION OR MODIFICATION AFTER [THE DATE 6 MONTHS AFTER PUBLICATION OF THE FINAL RULE]

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Cadmium	0.057 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.
Carbon monoxide	4.0 parts per million dry volume	24 hour block average	Carbon monoxide Continuous Emissions Monitoring System (performance specification 4A of this part, using a RA of 0.5 ppm instead of 5 ppm as specified in 13.2. For the cylinder gas audit, ±15% or 0.5 ppm, whichever is greater).
Dioxins/furans (total mass basis).	1,200 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 23 of appendix A–7 of this part).
Dioxins/furans (toxic equivalency basis).	94 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 23 of appendix A–7 of this part).
Hydrogen chloride	150 parts per million dry volume	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 26 or 26A of appendix A–8 of this part).
Lead	1.4 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.
Mercury	0.0013 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 29 of appendix A–8 of this part).
Opacity	13%	Three 1-hour blocks consisting of ten 6-minute average opacity values.	Performance test (Method 9 of appendix A–4 of this part).
Oxides of nitrogen	210 parts per million dry volume	3-run average (1 hour minimum sample time per run).	Performance test (Method 7E of appendix A–4 of this part).
Particulate matter (filterable).	240 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 5 or 29 of appendix A–3 or appendix A–8 of this part).
Sulfur dioxide	43 parts per million dry volume	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6c of appendix A–4 of this part. Use a span gas with a concentration of 200 ppm or less.
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period.	Three 1-hour observation periods	Visible emission test (Method 22 of appendix A–7 of this part).

[a] All emission limitations (except for opacity) are measured at 7% oxygen, dry basis at standard conditions.

Subpart DDDD—Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units

40. Section 60.2500 is revised to read as follows:

§ 60.2500 What is the purpose of this subpart?

This subpart establishes emission guidelines and compliance schedules for the control of emissions from commercial and industrial solid waste incineration (CISWI) units. The pollutants addressed by these emission guidelines are listed in table 2 of this subpart and tables 6 through 10 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.

41. Section 60.2505 is revised to read as follows.

§ 60.2505 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 CISWI units that meets the criteria in paragraphs (b) through (d) of this section, you must submit a State plan to U.S. Environmental Protection Agency (EPA) that implements the emission guidelines contained in this subpart.

(b) You must submit a State plan to EPA by December 3, 2001 for incinerators that commenced construction on or before November 30, 1999 and that were not modified or reconstructed after June 1, 2001.

(c) You must submit a State plan that meets the requirements of this subpart and contains the more stringent emission limit for the respective pollutant in table 6 of this subpart or table 1 of subpart CCCC of this part to EPA by [THE DATE 1 YEAR AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] for incinerators that commenced construction after November 30, 1999 but no later than June 4, 2010 or commenced modification or reconstruction after June 1, 2001 but no later than [THE DATE 6 MONTHS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER].

(d) You must submit a State plan to EPA that meets the requirements of this subpart and contains the emission limits in tables 7 through 10 of this subpart by [THE DATE 1 YEAR AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] for CISWI units other than incinerators that commenced construction on or before June 4, 2010.

41. Section 60.2525 is revised to read as follows:

§ 60.2525 What if my State plan is not approvable?

(a) If you do not submit an approvable State plan (or a negative declaration letter) by December 2, 2002, EPA will develop a Federal plan according to § 60.27 to implement the emission guidelines contained in this subpart. Owners and operators of CISWI units not covered by an approved State plan must comply with the Federal plan. The Federal plan is an interim action and will be automatically withdrawn when your State plan is approved.

(b) If you do not submit an approvable State plan (or a negative declaration letter) to EPA that meets the requirements of this subpart and contains the emission limits in tables 6 through 10 of this subpart for CISWI units that commenced construction after November 30, 1999, but on or before by [THE DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] by [THE DATE 1 YEAR AFTER THE DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], then EPA will develop a Federal plan according to § 60.27 to implement the emission guidelines contained in this subpart. Owners and operators of CISWI units not covered by an approved State plan must comply with the Federal plan. The Federal plan is an interim action and will be automatically withdrawn when your State plan is approved.

43. Section 60.2535 is amended by:

a. Revising paragraph (a) introductory text.

b. Redesignating paragraph (b) as paragraph (c).

c. Adding paragraph (b).

§ 60.2535 What compliance schedule must I include in my state plan?

(a) For CISWI units in the incinerator subcategory that commenced construction on or before November 30, 1999, your State plan must include compliance schedules that require CISWI units to achieve final compliance as expeditiously as practicable after approval of the state plan but not later than the earlier of the two dates specified in paragraphs (a)(1) and (2) of this section.

* * * * *

(b) For CISWI units in the incinerator subcategory that commenced construction after November 30, 1999, but on or before June 4, 2010, and for CISWI units in the energy recovery units, waste-burning kilns, burn-off ovens, and small remote incinerators subcategories that commenced construction before June 4, 2010, your state plan must include compliance schedules that require CISWI units to achieve final compliance as expeditiously as practicable after approval of the state plan but not later than the earlier of the two dates specified in paragraphs (b)(1) and (b)(2) of this section.

(1) [THE DATE 5 YEARS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER].

(2) 3 years after the effective date of state plan approval.

* * * * *

44. Section 60.2540 is amended by revising paragraph (a) to read as follows:

§ 60.2540 Are there any state plan requirements for this subpart that apply instead of the requirements specified in subpart B?

* * * * *

(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 CISWI units to comply by the dates specified in § 60.2535. This applies instead of the option for case-by-case less stringent emission standards and longer compliance schedules in § 60.24(f).

* * * * *

45. Section 60.2541 is added to read as follows:

§ 60.2541 In lieu of a state plan submittal, are there other acceptable option(s) for a state to meet its Section 111(d)/129(b)(2) obligations?

Yes, a state may meet its Clean Air Act Section 111(d)/129 obligations by submitting an acceptable written request for delegation of the Federal plan that meets the requirements of this section. This is the only other option for a state to meet its Clean Air Act Section 111(d)/129 obligations.

(a) An acceptable Federal plan delegation request must include the following:

(1) A demonstration of adequate resources and legal authority to administer and enforce the Federal plan.

(2) The items under § 60.2515(a)(1), (2) and (7).

(3) Certification that the hearing on the state delegation request, similar to the hearing for a state plan submittal, was held, a list of witnesses and their organizational affiliations, if any, appearing at the hearing, and a brief written summary of each presentation or written submission.

(4) A commitment to enter into a Memorandum of Agreement with the Regional Administrator that sets forth the terms, conditions and effective date of the delegation and that serves as the mechanism for the transfer of authority. Additional guidance and information is given in EPA's Delegation Manual, Item 7–139, Implementation and Enforcement of 111(d)(2) and 111(d)/(2)/129(b)(3) Federal plans.

(b) A State with an already approved CISWI Clean Air Act Section 111(d)/129 state plan is not precluded from receiving EPA approval of a delegation request for the revised Federal plan, providing the requirements of paragraph (a) of this section are met, and at the time of the delegation request, the state also requests withdrawal of EPA's previous State plan approval.

(c) A state's Clean Air Act Section 111(d)/129 obligations are separate from its obligations under title V of the Clean Air Act.

46. Section 60.2542 is added to read as follows:

§ 60.2542 What authorities will not be delegated to state, local, or Tribal agencies?

The authorities listed under § 60.2030(c) will not be delegated to state, local, or Tribal agencies.

47. Section 60.2545 is amended by adding paragraph (c) to read as follows:

§ 60.2545 Does this subpart directly affect CISWI unit owners and operators in my state?

* * * * *

(c) If you do not submit an approvable plan to implement and enforce the guidelines contained in this subpart by [THE DATE 1 YEAR AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] for CISWI units that commenced construction after November 30, 1999, but on or before [THE DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], the EPA will implement and enforce a Federal plan, as provided in § 60.2525, to ensure that each unit within your state that commenced construction after November 30, 1999, but on or before by [THE DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], reaches compliance with all the provisions of this subpart by [THE DATE 5 YEARS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER].

48. Section § 60.2555 is amended by:

a. Revising the introductory text.

b. Removing and reserving paragraph (b).

c. Revising paragraphs (c) and (g).

d. Removing and reserving paragraphs (j), (k) and (l).

e. Revising paragraphs (m) and (n).

f. Removing paragraph (o).

§ 60.2555 What combustion units are exempt from my state plan?

This subpart exempts the types of units described in paragraphs (a), (c) through (i) and (m) of this section, but some units are required to provide notifications. Air curtain incinerators are exempt from the requirements in this subpart except for the provisions in §§ 60.2805, 60.2860, and 60.2870.

* * * * *

(b) [Reserved]

(c) *Municipal waste combustion units.* Incineration units that are regulated under subpart Ea of this part (Standards of Performance for Municipal Waste Combustors); subpart Eb of this part (Standards of Performance for Large Municipal Waste Combustors); subpart Cb of this part (Emission Guidelines and Compliance Time for Large Municipal Combustors); AAAA of this part (Standards of Performance for Small Municipal Waste Combustion Units); or subpart BBBB of this part (Emission Guidelines for Small Municipal Waste Combustion Units).

* * * * *

(g) *Hazardous waste combustion units.* Units for which you are required to get a permit under section 3005 of the Solid Waste Disposal Act.

* * * * *

(j) [Reserved]

(k) [Reserved]

(l) [Reserved]

(m) *Sewage treatment plants.* Incineration units regulated under subpart O of this part (Standards of Performance for Sewage Treatment Plants).

(n) *Sewage sludge incineration units.* Incineration units combusting sewage sludge for the purpose of reducing the volume of the sewage sludge by removing combustible matter. Sewage sludge incineration unit designs may include fluidized bed and multiple hearth.

§ 60.2558 [Removed]

49. Section 60.2558 is removed.

50. Section 60.2635 is amended by revising paragraph (c)(1)(vii) to read as follows:

§ 60.2635 What are the operator training and qualification requirements?

* * * * *

(c) * * *

(1) * * *

(vii) Actions to prevent malfunctions or to prevent conditions that may lead to malfunctions.

* * * * *

51. Section 60.2650 is amended by revising paragraph (d) to read as follows:

§ 60.2650 How do I maintain my operator qualification?

* * * * *

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

* * * * *

52. Section 60.2670 is revised to read as follows:

§ 60.2670 What emission limitations must I meet and by when?

(a) You must meet the emission limitations for each unit, including bypass stack or vent, specified in table 2 of this subpart or tables 6 through 10 of this subpart by the final compliance date under the approved State plan, Federal plan, or delegation, as applicable. The emission limitations apply at all times the unit is operating including and not limited to startup, shutdown, or malfunction.

(b) Units that do not use wet scrubbers must maintain opacity to less than or equal to the percent opacity (1-hour block average) specified in table 2 of this subpart or tables 6 through 10 of this subpart, as applicable.

53. Section 60.2675 is amended by adding paragraphs (d), (e) and (f) to read as follows:

§ 60.2675 What operating limits must I meet and by when?

* * * * *

(d) If you use an electrostatic precipitator to comply with the emission limitations, you must measure the voltage and amperage of the electrostatic precipitator collection plates during the particulate matter performance test. Calculate the average value of these parameters for each test run. The minimum test run averages establish your site-specific minimum voltage and amperage operating limits for the electrostatic precipitator.

(e) If you use activated carbon injection to comply with the emission limitations, you must measure the mercury sorbent flow rate during the mercury performance test. The minimum mercury sorbent flow rate test run averages establish your site-specific minimum mercury sorbent flow rate.

(f) If you use selective noncatalytic reduction to comply with the emission limitations, you must establish the maximum charge rate, the minimum secondary chamber temperature (if applicable to your CISWI unit) and the minimum reagent flow rate as site-specific operating parameters during the initial nitrogen oxides performance test to determine compliance with the emissions limits.

54. Section 60.2680 is revised to read as follows:

§ 60.2680 What if I do not use a wet scrubber, activated carbon injection, selective noncatalytic reduction, or an electrostatic precipitator to comply with the emission limitations?

(a) If you use an air pollution control device other than a wet scrubber, activated carbon injection, selective noncatalytic reduction, or an electrostatic precipitator or limit emissions in some other manner to comply with the emission limitations under § 60.2670, you must petition the Administrator for specific operating limits to be established during the initial performance test and continuously monitored thereafter. You must not conduct the initial performance test until after the petition has been approved by the Administrator. Your petition must include the five items listed in paragraphs (a)(1) through (a)(5) of this section.

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

(2) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters and how limits on these parameters will serve to limit emissions of regulated pollutants.

(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the operating limits on these parameters.

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.

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

(b) For energy recovery units that do not use a wet scrubber, you must install, operate, certify and maintain a continuous opacity monitoring system according to the procedures in § 60.2710 by the compliance date specified in § 60.2670.

§ 60.2685 [Removed]

55. Section 60.2685 is removed.

56. Section 60.2690 is amended by revising paragraph (c) and adding paragraphs (h) through (n) to read as follows:

§ 60.2690 How do I conduct the initial and annual performance test?

* * * * *

(c) All performance tests must be conducted using the minimum run duration specified in tables 2 and 6 through 10 of this subpart.

* * * * *

(h) Method 22 of appendix A–7 of this part must be used to determine compliance with the fugitive ash emission limit in table 2 of this subpart or tables 6 through 10 of this subpart.

(i) Except as specified in paragraphs (i)(1), (i)(2), (i)(3), and (i)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under Section 114 of the Clean Air Act, the owner or operator of such facility must conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(1) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator must notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification must occur as soon as practicable.

(2) The owner or operator must provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test must be conducted as soon as practicable after the force majeure occurs.

(3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(4) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (i)(1), (2), and (3) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(j) Performance tests must be conducted and data reduced in accordance with the test methods and procedures contained in this subpart unless the Administrator does one of the following.

(1) Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology.

(2) Approves the use of an equivalent method.

(3) Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance.

(4) Waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard.

(5) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph is construed to abrogate the Administrator's authority to require testing under Section 114 of the Clean Air Act.

(k) Performance tests must be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator must make available to the Administrator such records as may be necessary to determine the conditions of the performance tests.

(l) The owner or operator of an affected facility must provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, *etc.*) in conducting the scheduled performance test, the owner or operator of an affected facility must notify the Administrator (or delegated state or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated state or local agency) by mutual agreement.

(m) The owner or operator of an affected facility must provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes the following:

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures.

(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

(n) Unless otherwise specified in this subpart, each performance test must consist of three separate runs using the applicable test method. Each run must be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

57. Section 60.2695 is revised to read as follows:

§ 60.2695 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 or tables 6 through 10 of this subpart.

58. Section 60.2700 is revised to read as follows:

§ 60.2700 How do I demonstrate initial compliance with the amended emission limitations and establish the operating limits?

(a) You must conduct an initial performance test, as required under § 60.2690 and § 60.2670, to determine compliance with the emission limitations in table 2 of this subpart and tables 6 through 10 of this subpart and to establish operating limits using the procedures in § 60.2675 or § 60.2680. The initial performance test must be conducted using the test methods listed in table 2 of this subpart and tables 6 through 10 of this subpart and the procedures in § 60.2690. The use of the bypass stack during a performance test shall invalidate the performance test.

(b) You may use the results from a performance test conducted within the two previous years that demonstrated compliance with the emission limits in table 2 of this subpart or tables 5 through 9 of this subpart. However, you must continue to meet the operating limits established during the most recent performance test that demonstrated compliance with the emission limits in table 2 of this subpart or tables 5 through 9 of this subpart. The test must use the test methods in table 2 of this subpart or tables 5 through 9 of this subpart.

59. Section 60.2706 is added to read as follows:

§ 60.2706 By what date must I conduct the initial air pollution control device inspection?

(a) The initial air pollution control device inspection must be conducted within 60 days after installation of the control device and the associated CISWI unit reaches the charge rate at which it will operate, but no later than 180 days after the final compliance date for meeting the amended emission limitations.

(b) Within 10 operating days following an air pollution control device inspection, all necessary repairs must be completed unless the owner or operator obtains written approval from the state agency establishing a date whereby all necessary repairs of the designated facility must be completed.

60. Section 60.2710 is amended by revising paragraphs (a) and (b) and adding paragraphs (d) through (t) to read as follows:

§ 60.2710 How do I demonstrate continuous compliance with the amended emission limitations and the operating limits?

(a) You must conduct an annual performance test for particulate matter, hydrogen chloride, fugitive ash and opacity for each CISWI unit as required under § 60.2690 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 or tables 6 through 10 of this subpart and the procedures in § 60.2690.

(b) You must continuously monitor the operating parameters specified in § 60.2675 or established under § 60.2680. Operation above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Three-hour rolling average values are used to determine compliance (except for baghouse leak detection system alarms) unless a different averaging period is established under § 60.2680. Operating limits are confirmed or reestablished during performance tests.

* * * * *

(d) For energy recovery units, incinerators, burn-off ovens and small remote units, you must perform annual visual emissions test for ash handling.

(e) For energy recovery units, you must conduct an annual performance test for opacity (except where particulate matter continuous emissions monitoring systems are used for compliance) and the pollutants (except for carbon monoxide) listed in table 2 of this subpart and tables 6 through 10 of this subpart.

(f) For energy recovery units, demonstrate continuous compliance with the carbon monoxide emission limit using a carbon monoxide continuous emissions monitoring system according to the following requirements:

(1) Determine continuous compliance with the carbon monoxide emissions limit using a 24-hour block average, calculated as specified in section 12.4.1 of EPA Reference Method 19 of appendix A–7 of this part.

(2) Operate the carbon monoxide continuous emissions monitoring system in accordance with the applicable requirements of performance specification 4B of appendix B and the quality assurance procedures of appendix F of this part.

(g) For energy recovery units with design capacities greater than 250 MMBtu/hr, demonstrate continuous compliance with the particulate matter emissions limit using a particulate matter continuous emissions monitoring system according to the procedures in § 60.2730(n).

(h) For waste-burning kilns, you must conduct an annual performance test for particulate matter, hydrogen chloride, fugitive ash and opacity (as mentioned in section 60.2710(a)), nitrogen oxides and sulfur dioxide as listed in table 8 of this subpart. You must determine compliance with the mercury emissions limit using a mercury continuous emissions monitoring system according to the following requirements:

(1) Operate a continuous emission monitor in accordance with performance specification 12A of 40 CFR part 60, appendix B or a sorbent trap based integrated monitor in accordance with performance specification 12B of 40 CFR part 60, appendix B or appendix K of 40 CFR part 75. The duration of the performance test must be a calendar month. For each calendar month in which the waste-burning kiln operates, hourly mercury concentration data and stack gas volumetric flow rate data must be obtained.

(2) Owners or operators using a mercury continuous emissions monitoring system must install, operate, calibrate and maintain an instrument for continuously measuring and recording the exhaust gas flow rate to the atmosphere according to the requirements of performance specification 12A of 40 CFR part 60, appendix B and quality assurance procedure 5 of 40 CFR part 60, appendix F, upon promulgation.

(3) The owner or operator of a waste-burning kiln must demonstrate initial compliance by operating a mercury continuous emission monitor while the raw mill of the in-line kiln/raw mill is under normal operating conditions and while the raw mill of the in-line kiln/raw mill is not operating.

(i) If you use an air pollution control device to meet the emission limitations in this subpart, you must conduct an initial and annual inspection of the air pollution control device. The inspection must include, at a minimum, the following:

(1) Inspect air pollution control device(s) for proper operation.

(2) Develop a site-specific monitoring plan according to the requirements in paragraph (j) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 60.13(i).

(j) For each continuous monitoring system required in this section, you must develop and submit to the EPA Administrator for approval a site-specific monitoring plan according to the requirements of this paragraph (j) that addresses paragraphs (j)(1)(i) through (vi) of this section.

(1) You must submit this site-specific monitoring plan at least 60 days before your initial performance evaluation of your continuous monitoring system.

(i) Installation of the continuous monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.,* on or downstream of the last control device).

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer and the data collection and reduction systems.

(iii) Performance evaluation procedures and acceptance criteria (*e.g.,* calibrations).

(iv) Ongoing operation and maintenance procedures in accordance with the general requirements of § 60.11(d).

(v) Ongoing data quality assurance procedures in accordance with the general requirements of § 60.13.

(vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 60.7(b), (c), (c)(1), (c)(4), (d), (e), (f) and (g).

(2) You must conduct a performance evaluation of each continuous monitoring system in accordance with your site-specific monitoring plan.

(3) You must operate and maintain the continuous monitoring system in continuous operation according to the site-specific monitoring plan.

(k) If you have an operating limit that requires the use of a flow measurement device, you must meet the requirements in paragraphs (j) and (k)(1) through (4) of this section.

(1) Locate the flow sensor and other necessary equipment in a position that provides a representative flow.

(2) Use a flow sensor with a measurement sensitivity of 2 percent of the flow rate.

(3) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) Conduct a flow sensor calibration check at least semiannually.

(l) If you have an operating limit that requires the use of a pressure measurement device, you must meet the requirements in paragraphs (j) and (l)(1) through (6) of this section.

(1) Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure.

(2) Minimize or eliminate pulsating pressure, vibration and internal and external corrosion.

(3) Use a gauge with a minimum tolerance of 1.27 centimeters of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(4) Check pressure tap pluggage daily.

(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(m) If you have an operating limit that requires the use of a pH measurement device, you must meet the requirements in paragraphs (j) and (m)(1) through (3) of this section.

(1) Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.

(n) If you have an operating limit that requires the use of equipment to monitor voltage and secondary current (or total power input) of an electrostatic precipitator, you must use voltage and secondary current monitoring equipment to measure voltage and secondary current to the electrostatic precipitator.

(o) If you have an operating limit that requires the use of equipment to monitor sorbent injection rate (*e.g.,* weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (j) and (o)(1) through (3) of this section.

(1) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.

(2) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(3) At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.

(p) If you elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain and continuously operate a bag leak detection system as specified in paragraphs (p)(1) through (8) of this section.

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA–454/R–98–015, September 1997.

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

(5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(7) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.

(8) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

(q) For facilities using a continuous emissions monitoring system to demonstrate compliance with the sulfur dioxide emission limit, compliance with the sulfur dioxide emission limit may be demonstrated by using the continuous emission monitoring system specified in § 60.2165 to measure sulfur dioxide and calculating a 24-hour daily geometric average emission concentration using EPA Reference Method 19, sections 4.3 and 5.4, as applicable. The sulfur dioxide continuous emission monitoring system must be operated according to performance specification

2 in appendix B of this part and must follow the procedures and methods specified in this paragraph (q). For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide continuous emission monitoring systems should be no greater than 20 percent of the mean value of the reference method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the reference method and the continuous emission monitoring systems, whichever is greater.

(1) During each relative accuracy test run of the continuous emission monitoring system required by performance specification 2 in appendix B of this part, sulfur dioxide and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (q)(1)(i) and (q)(1)(ii) of this section.

(i) For sulfur dioxide, EPA Reference Method 6, 6A, or 6C, or as an alternative ANSI/ASME PTC–19.10–1981—Flue and Exhaust Gas Analysis [Part 10, Instruments and Apparatus] (incorporated by reference, see § 60.17] must be used.

(ii) For oxygen (or carbon dioxide), EPA Method 3, 3A, or 3B, or as an alternative ANSI/ASME PTC–19–10–1981—Flue and Exhaust Gas Analysis [Part 10, Instruments and Apparatus] (incorporated by reference, see § 60.17] as applicable, must be used.

(2) The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device must be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the unit subject to this rule. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device must be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the unit subject to this rule.

(3) Quarterly accuracy determinations and daily calibration drift tests must be performed in accordance with procedure 1 in appendix F of this part.

(4) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks and/or zero and span adjustments, emissions data must be obtained by using other monitoring systems as approved by EPA or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 85 percent of the hours per day, 90 percent of the hours per calendar quarter, and 95 percent of the hours per calendar year that the affected facility is operated and combusting solid waste (as that term is defined by the Administrator pursuant to Subtitle D of RCRA).

(r) For facilities using a continuous emissions monitoring system to demonstrate continuous compliance with the nitrogen oxides emission limit, compliance with the nitrogen oxides emission limit may be demonstrated by using the continuous emission monitoring system specified in § 60.2165 to measure nitrogen oxides and calculating a 24-hour daily arithmetic average emission concentration using EPA Reference Method 19, section 4.1. The nitrogen oxides continuous emission monitoring system must be operated according to performance specification 2 in appendix B of this part and must follow the procedures and methods specified in paragraphs (r)(1) through (r)(5) of this section.

(1) During each relative accuracy test run of the continuous emission monitoring system required by performance specification 2 of appendix B of this part, nitrogen oxides and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (r)(1)(i) and (r)(1)(ii) of this section.

(i) For nitrogen oxides, EPA Reference Method 7, 7A, 7C, 7D, or 7E must be used.

(ii) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or as an alternative ANSI/ASME PTC–19.10–1981—Flue and Exhaust Gas Analysis [Part 10, Instruments and Apparatus] (incorporated by reference, see § 60.17], as applicable, must be used.

(2) The span value of the continuous emission monitoring system must be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of unit.

(3) Quarterly accuracy determinations and daily calibration drift tests must be performed in accordance with procedure 1 in appendix F of this part.

(4) When nitrogen oxides continuous emissions monitoring data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emissions data must be obtained using other monitoring systems as approved by EPA or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 85 percent of the hours per day, 90 percent of the hours per calendar quarter, and 95 percent of the hours per calendar year the unit is operated and combusting solid waste.

(5) The owner or operator of an affected facility may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels must be established during the initial performance test according to the procedures and methods specified in paragraphs (r)(5)(i) through (r)(5)(iv) of this section. This relationship may be reestablished during performance compliance tests.

(i) The fuel factor equation in Method 3B must be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3, 3A, or 3B, or as an alternative ANSI/ASME PTC–19.10–1981—Flue and Exhaust Gas Analysis [Part 10, Instruments and Apparatus] (incorporated by reference, see § 60.17), as applicable, must be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.

(ii) Samples must be taken for at least 30 minutes in each hour.

(iii) Each sample must represent a 1-hour average.

(iv) A minimum of 3 runs must be performed.

(s) For facilities using a continuous emissions monitoring system to demonstrate continuous compliance with any of the emission limits of this subpart, you must complete the following:

(1) Demonstrate compliance with the appropriate emission limit(s) using a 24-hour block average, calculated following the procedures in EPA Method 19 of appendix A–7 of this part.

(2) Operate all continuous emissions monitoring system in accordance with the applicable procedures under appendices B and F of this part.

(t) Use of the bypass stack at any time is an emissions standards deviation for particulate matter, HCl, Pb, Cd and Hg.

61. Section 60.2715 is revised to read as follows:

§ 60.2715 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.

62. Section 60.2716 is added to read as follows:

§ 60.2716 By what date must I conduct the annual air pollution control device inspection?

On an annual basis (no more than 12 months following the previous annual air pollution control device inspection), you must complete the air pollution control device inspection as described in § 60.2706.

63. Section 60.2720 is revised to read as follows:

§ 60.2720 May I conduct performance testing less often?

(a) You can test less often for particulate matter, hydrogen chloride, fugitive ash, or opacity, provided:

(1) You have test data for at least 3 consecutive years.

(2) The test data results for particulate matter, hydrogen chloride, fugitive ash, or opacity is less than 75 percent of the emissions or opacity limit.

(3) There are no changes in the operation of the affected source or air pollution control equipment that could affect emissions. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the third year and no more than 36 months following the previous performance test.

(b) If your CISWI unit continues to emit less than 75 percent of the emission limitation for particulate matter, hydrogen chloride, fugitive ash, or opacity and there are no changes in the operation of the affected facility or air pollution control equipment that could increase emissions, you may choose to conduct performance tests for these pollutants every third year, but each test must be within 36 months of the previous performance test.

(c) If a performance test shows emissions exceeded 75 percent or greater of the emission or opacity limitation for particulate matter, hydrogen chloride, fugitive ash, or opacity, you must conduct annual performance tests for that pollutant until all performance tests over a 3-year period are within 75 percent of the applicable emission limitation.

64. Section 60.2730 is amended by revising paragraph (c) and adding paragraphs (d) through (p) to read as follows:

§ 60.2730 What monitoring equipment must I install and what parameters must I monitor?

* * * * *

(c) If you are using something other than a wet scrubber, activated carbon, selective non-catalytic reduction, or an electrostatic precipitator to comply with the emission limitations under § 60.2670, 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 § 60.2680.

(d) If you use activated carbon injection to comply with the emission limitations in this subpart, you must measure the minimum mercury sorbent flow rate once per hour.

(e) If you use selective noncatalytic reduction to comply with the emission limitations, you must complete the following:

(1) Following the date on which the initial performance test is completed or is required to be completed under § 60.2690, whichever date comes first, ensure that the affected facility does not operate above the maximum charge rate, or below the minimum secondary chamber temperature (if applicable to your CISWI unit) or the minimum reagent flow rate measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times. Operating parameter limits are confirmed or reestablished during performance tests.

(2) Operation of the affected facility above the maximum charge rate, below the minimum secondary chamber temperature and below the minimum reagent flow rate simultaneously constitute a violation of the nitrogen oxides emissions limit.

(f) If you use an electrostatic precipitator to comply with the emission limits of this subpart, you must monitor the voltage and amperage of the electrostatic precipitator collection plates and maintain the 3-hour block averages at or above the operating limits established during the mercury or particulate matter performance test.

(g) To demonstrate continuous compliance with the hydrogen chloride emissions limit, a facility may substitute use of a hydrogen chloride continuous emissions monitoring system for conducting the hydrogen chloride annual performance test, monitoring the minimum hydrogen chloride sorbent flow rate and monitoring the minimum scrubber liquor pH.

(h) To demonstrate continuous compliance with the particulate matter emissions limit, a facility may substitute use of a particulate matter continuous emissions monitoring system for conducting the particulate matter annual performance test and monitoring the minimum pressure drop across the wet scrubber, if applicable.

(i) To demonstrate continuous compliance with the dioxin/furan emissions limit, a facility may substitute use of a continuous automated sampling system for the dioxin/furan annual performance test. You must record the output of the system and analyze the sample according to EPA Method 23 of appendix A–7 of this part. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to dioxin/furan from continuous monitors is published in the **Federal Register.** The owner or operator who elects to continuously sample dioxin/furan emissions instead of sampling and testing using EPA Method 23 of appendix A–7 must install, calibrate, maintain and operate a continuous automated sampling system and must comply with the requirements specified in § 60.58b(p) and (q).

(j) To demonstrate continuous compliance with the mercury emissions limit, a facility may substitute use of a continuous automated sampling system for the mercury annual performance test. You must record the output of the system and analyze the sample at set intervals using any suitable determinative technique that can meet appropriate performance criteria. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to mercury from monitors is published in the **Federal Register.** The owner or operator who elects to continuously sample mercury emissions instead of sampling and testing using EPA Method 29 of appendix A–8 of this part, ASTM D6784–02 (2008), Standard Test Method for Elemental, Oxidized, Particle Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), or an approved alternative method for measuring mercury emissions, must install, calibrate, maintain and operate a continuous automated sampling system and must comply with the requirements specified in § 60.58b(p) and (q).

(k) To demonstrate continuous compliance with the nitrogen oxides emissions limit, a facility may substitute use of a continuous emissions monitoring system for the nitrogen oxides annual performance test to demonstrate compliance with the nitrogen oxides emissions limits.

(1) Install, calibrate, maintain and operate a continuous emission monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system. The requirements under performance specification 2 of appendix

B of this part, the quality assurance procedure 1 of appendix F of this part and the procedures under § 60.13 must be followed for installation, evaluation and operation of the continuous emission monitoring system.

(2) Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under § 60.2690, compliance with the emission limit for nitrogen oxides required under § 60.52b(d) must be determined based on the 24-hour daily arithmetic average of the hourly emission concentrations using continuous emission monitoring system outlet data. The 1-hour arithmetic averages must be expressed in parts per million by volume (dry basis) and used to calculate the 24-hour daily arithmetic average concentrations. The 1-hour arithmetic averages must be calculated using the data points required under § 60.13(e)(2).

(1) To demonstrate continuous compliance with the sulfur dioxide emissions limit, a facility may substitute use of a continuous automated sampling system for the sulfur dioxide annual performance test to demonstrate compliance with the sulfur dioxide emissions limits.

(1) Install, calibrate, maintain and operate a continuous emission monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system. Requirements under performance specification 2 of appendix B of this part, the quality assurance requirements of procedure 1 of appendix F of this part and the procedures under § 60.13 must be followed for installation, evaluation and operation of the continuous emission monitoring system.

(2) Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under § 60.2690, compliance with the sulfur dioxide emission limit may be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data. The 1-hour arithmetic averages must be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 24-hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The 1-hour arithmetic averages must be calculated using the data points required under § 60.13(e)(2).

(m) For energy recovery units that do not use a wet scrubber, you must install, operate, certify and maintain a continuous opacity monitoring system according to the procedures in paragraphs (m)(1) through (5) of this section by the compliance date specified in § 60.2670. Energy recovery units that use a particulate matter continuous emissions monitoring system to demonstrate initial and continuing compliance according to the procedures in § 60.2730(n) are not required to install a continuous opacity monitoring system and must perform the annual performance tests for opacity consistent with § 60.2710(e).

(1) Install, operate and maintain each continuous opacity monitoring system according to performance specification 1 of 40 CFR part 60, appendix B.

(2) Conduct a performance evaluation of each continuous opacity monitoring system according to the requirements in § 60.13 and according to PS–1 of 40 CFR part 60, appendix B.

(3) As specified in § 60.13(e)(1), each continuous opacity monitoring system must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) Reduce the continuous opacity monitoring system data as specified in § 60.13(h)(1).

(5) Determine and record all the 6-minute averages (and 1-hour block averages as applicable) collected.

(n) For energy recovery units with design capacities greater than 250 MMBtu/hr, in place of particulate matter testing with EPA Method 5, an owner or operator must install, calibrate, maintain and operate a continuous emission monitoring system for monitoring particulate matter emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who continuously monitors particulate matter emissions instead of conducting performance testing using EPA Method 5 must install, calibrate, maintain and operate a continuous emission monitoring system and must comply with the requirements specified in paragraphs (n)(1) through (n)(14) of this section.

(1) Notify the Administrator 1 month before starting use of the system.

(2) Notify the Administrator 1 month before stopping use of the system.

(3) The monitor must be installed, evaluated and operated in accordance with the requirements of performance specification 11 of appendix B of this part and quality assurance requirements of procedure 2 of appendix F of this part and § 60.13.

(4) The initial performance evaluation must be completed no later than 180 days after the final compliance date for meeting the amended emission limitations, as specified under § 60.2690 or within 180 days of notification to the Administrator of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 5 performance tests, whichever is later.

(5) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established according to the procedures and methods specified in § 60.2710(r)(5)(i) through (r)(5)(iv).

(6) The owner or operator of an affected facility must conduct an initial performance test for particulate matter emissions as required under § 60.2690. Compliance with the particulate matter emission limit must be determined by using the continuous emission monitoring system specified in paragraph (n) of this section to measure particulate matter and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19, section 4.1.

(7) Compliance with the particulate matter emission limit must be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data.

(8) At a minimum, valid continuous monitoring system hourly averages must be obtained as specified in§ 60.2735(e).

(9) The 1-hour arithmetic averages required under paragraph (n)(7) of this section must be expressed in milligrams per dry standard cubic meter corrected to 7 percent oxygen (or carbon dioxide) (dry basis) and must be used to calculate the 24-hour daily arithmetic average emission concentrations. The 1-hour arithmetic averages must be calculated using the data points required under § 60.13(e)(2).

(10) All valid continuous emission monitoring system data must be used in calculating average emission concentrations even if the minimum continuous emission monitoring system data requirements of paragraph (n)(8) of this section are not met.

(11) The continuous emission monitoring system must be operated according to performance specification 11 in appendix B of this part.

(12) During each relative accuracy test run of the continuous emission monitoring system required by performance specification 11 in

appendix B of this part, particulate matter and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the following test methods:

(i) For particulate matter, EPA Reference Method 5 must be used.

(ii) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable must be used.

(13) Quarterly accuracy determinations and daily calibration drift tests must be performed in accordance with procedure 2 in appendix F of this part.

(14) When particulate matter emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emissions data must be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 85 percent of the hours per day, 90 percent of the hours per calendar quarter, and 95 percent of the hours per calendar year that the affected facility is operated and combusting waste.

(o) For energy recovery units, you must install, operate, certify and maintain a continuous emissions monitoring system for carbon monoxide, according to the requirements of performance specification 4B of appendix B of this part and quality assurance procedure 1 of appendix F of this part.

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

65. Section 60.2735 is revised to read as follows:

§ 60.2735 Is there a minimum amount of monitoring data I must obtain?

(a) You must conduct all monitoring at all times the CISWI unit is operating.

(b) You must use all the data collected during all periods in assessing compliance with the operating limits.

(c) For continuous emission monitoring systems for measuring sulfur dioxide emissions, valid continuous monitoring system hourly averages must be obtained as specified in paragraphs (c)(1) and (c)(2) of this section for a minimum of 85 percent of the hours per day, 90 percent of the hours per calendar quarter, and 95 percent of the hours per calendar year that the affected facility is combusting waste. All valid continuous emission monitoring system data must be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of this paragraph (c) are not met.

(1) At least 2 data points per hour must be used to calculate each 1-hour arithmetic average.

(2) Each sulfur dioxide 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(d) For continuous emission monitoring systems for measuring nitrogen oxides emissions, valid continuous emission monitoring system hourly averages must be obtained as specified in paragraphs (d)(1) and (d)(2) of this section for a minimum of 85 percent of the hours per day, 90 percent of the hours per calendar quarter, and 95 percent of the hours per calendar year that the affected facility is combusting waste. All valid continuous emission monitoring system data must be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of this paragraph (d) are not met.

(1) At least 2 data points per hour must be used to calculate each 1-hour arithmetic average.

(2) Each nitrogen oxides 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(e) For continuous emission monitoring systems for measuring particulate matter emissions, valid continuous monitoring system hourly averages must be obtained as specified in paragraphs (e)(1) and (e)(2) for a minimum of 85 percent of the hours per day, 90 percent of the hours per calendar quarter, and 95 percent of the hours per calendar year that the affected source is combusting waste. All valid continuous emission monitoring system data must be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of this paragraph (c) are not met.

(1) At least 2 data points per hour must be used to calculate each one-hour arithmetic average.

(2) Each particulate matter one-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the one-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

66. Section 60.2740 is amended by:

a. Revising the introductory text.

b. Revising paragraphs (b)(5) and (e).

c. Removing and reserving paragraphs (c) and (d).

d. Adding paragraphs (n) through (t).

§ 60.2740 What records must I keep?

You must maintain the items (as applicable) as specified in paragraphs (a), (b), and (e) through (t) of this section for a period of at least 5 years:

* * * * *

(b) * * *

(5) For affected CISWI units that establish operating limits for controls other than wet scrubbers under § 60.2675(d) through (f) or § 60.2680, you must maintain data collected for all operating parameters used to determine compliance with the operating limits.

* * * * *

(c) [Reserved]

(d) [Reserved]

(e) Identification of calendar dates and times for which data show a deviation from the operating limits in table 3 of this subpart or a deviation from other operating limits established under § 60.2675(d) through (f) or § 60.2680 with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.

* * * * *

(n) Maintain records of the annual air pollution control device inspections that are required for each CISWI unit subject to the emissions limits in table 2 of this subpart or tables 6 through 10 of this subpart, any required maintenance and any repairs not completed within 10 days of an inspection or the timeframe established by the state regulatory agency.

(o) For continuously monitored pollutants or parameters, you must document and keep a record of the following parameters measured using continuous monitoring systems.

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

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

(3) All 1-hour average concentrations of nitrogen oxides emissions.

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

(5) All one-hour average concentrations of particulate matter emissions.

(6) All one-hour average concentrations of mercury emissions.

(7) All one-hour average concentrations of hydrogen chloride emissions.

(p) Records indicating use of the bypass stack, including dates, times and durations.

(q) If you choose to stack test less frequently than annually, consistent with § 60.2720(a) through (c), you must keep annual records that document that your emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year.

(r) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(s) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(t) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 60.11(d), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

67. Section 60.2770 is amended by revising paragraph (e) and adding paragraphs (k) through (o) to read as follows:

§ 60.2770 What information must I include in my annual report?

* * * * *

(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.

* * * * *

(k) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 60.11(d), including actions taken to correct a malfunction.

(l) For each deviation from an emission or operating limitation that occurs for a CISWI unit for which you are not using a CMS to comply with the emission or operating limitations in this subpart, the annual report must contain the following information.

(1) The total operating time of the CISWI unit at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(m) If there were periods during which the continuous monitoring system, including the continuous emission monitoring system, was out of control as specified in paragraph (o) of this section, the annual report must contain the following information for each deviation from an emission or operating limitation occurring for a CISWI unit for which you are using a continuous monitoring system to comply with the emission and operating limitations in this subpart.

(1) The date and time that each malfunction started and stopped.

(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each continuous monitoring system was out-of-control, including start and end dates and hours and descriptions of corrective actions taken.

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of continuous monitoring system downtime during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total operating time of the CISWI unit at which the continuous monitoring system downtime occurred during that reporting period.

(8) An identification of each parameter and pollutant that was monitored at the CISWI unit.

(9) A brief description of the CISWI unit.

(10) A brief description of the continuous monitoring system.

(11) The date of the latest continuous monitoring system certification or audit.

(12) A description of any changes in continuous monitoring system, processes, or controls since the last reporting period.

(n) If there were periods during which the continuous monitoring system, including the continuous emission monitoring system, was not out of control as specified in paragraph (o) of this section, a statement that there were not periods during which the continuous monitoring system was out of control during the reporting period.

(o) A continuous monitoring system is out of control if any of the following occur.

(1) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard.

(2) The continuous monitoring system fails a performance test audit (*e.g.,* cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.

(3) The continuous opacity monitoring system calibration drift exceeds two times the limit in the applicable performance specification in the relevant standard.

68. Section 60.2780 is amended by revising paragraph (c) and removing paragraphs (e) and (f).

§ 60.2780 What must I include in the deviation report?

* * * * *

(c) Durations and causes of the following:

(1) Each deviation from emission limitations or operating limits and your corrective actions.

(2) Bypass events and your corrective actions.

* * * * *

69. Section 60.2795 is revised to read as follows:

§ 60.2795 In what form can I submit my reports?

(a) Submit initial, annual and deviation reports electronically or in paper format, postmarked on or before the submittal due dates.

(b) After December 31, 2011, within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with this subpart, the owner or operator of the affected facility must submit the test data to EPA by entering the data electronically into EPA's WebFIRE database through EPA's Central Data Exchange. The owner or operator of an affected source shall enter the test data into EPA's database using the Electronic Reporting Tool or other compatible electronic spreadsheet. Only performance evaluation data collected using methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

70. Section 60.2805 is revised to read as follows:

§ 60.2805 Am I required to apply for and obtain a Title V operating permit for my unit?

Yes. Each CISWI unit and air curtain incinerator affected by this subpart must operate pursuant to a permit issued under Section 129(e) and title V of the Clean Air Act.

71. Section 60.2860 is revised to read as follows:

§ 60.2860 What are the emission limitations for air curtain incinerators?

After the date the initial stack test is required or completed (whichever is earlier), you must meet the limitations in paragraphs (a) and (b) of this section.

(a) Maintain opacity to less than or equal to 10 percent opacity (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values), except as described in paragraph (b) of this section.

(b) Maintain opacity to less than or equal to 35 percent opacity (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values) during the startup period that is within the first 30 minutes of operation.

72. Section 60.2870 is amended by revising paragraphs (c)(1) and (2) to read as follows:

§ 60.2870 What are the recordkeeping and reporting requirements for air curtain incinerators?

* * * * *

(c) * * *

(1) The types of materials you plan to combust in your air curtain incinerator.

(2) The results (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values) of the initial opacity tests.

* * * * *

73. Section 60.2875 is amended by:

a. Adding definitions for "Burn-off oven", "Bypass stack", "Energy recovery unit", "Incinerator", "Kiln", "Minimum voltage or amperage", "Opacity", "Raw mill", "Small remote incinerator", "Solid waste incineration unit" and "Waste-burning kiln", in alphabetical order.

b. Revising the definitions for "Commercial and industrial solid waste incineration (CISWI) unit" and "Deviation".

c. Removing the definitions for "Agricultural waste", "Commercial or industrial waste", "Malfunction" and "Solid Waste".

§ 60.2875 What definitions must I know?

* * * * *

Burn-off oven means any rack reclamation unit, part reclamation unit, or drum reclamation unit.

Bypass stack means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

* * * * *

Commercial and industrial solid waste incineration (CISWI) unit means any distinct operating unit of any commercial or industrial facility that combusts any solid waste as that term is defined in 40 CFR part 241. While not all CISWI units will include all of the following components, a CISWI unit includes, but is not limited to, the solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the solid waste hopper (if applicable) and extends through two areas: The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and the combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The CISWI unit includes all ash handling systems connected to the bottom ash handling system.

* * * * *

Deviation means any instance in which an affected source subject to this subpart, 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 affected source required to obtain such a permit.

* * * * *

Energy recovery unit means a combustion unit combusting solid waste (as that term is defined by the Administrator pursuant to Subtitle D of RCRA) for energy recovery. Energy recovery units include units that would be considered boilers and process heaters if they did not combust solid waste.

* * * * *

Incinerator means any furnace used in the process of combusting solid waste (as the term is defined by the Administrator pursuant to Subtitle D of RCRA) for the purpose of reducing the volume of the waste by removing combustible matter. Incinerator designs include single chamber, two-chamber and cyclonic burn barrels.

* * * * *

Kiln means an oven or furnace, including any associated preheater or precalciner devices, used for processing a substance by burning, firing or drying. Kilns include cement kilns, that produce clinker by heating limestone and other materials for subsequent production of Portland cement and lime kilns, that produce quicklime by calcination of limestone.

* * * * *

Minimum voltage or amperage means 90 percent of the lowest test-run average voltage or amperage to the electrostatic precipitator measured from the pressure drop and liquid flow rate monitors during the most recent particulate matter or mercury performance test demonstrating compliance with the applicable emission limits.

* * * * *

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

* * * * *

Raw mill means a ball and tube mill, vertical roller mill or other size reduction equipment, that is not part of an in-line kiln/raw mill, used to grind feed to the appropriate size. Moisture may be added or removed from the feed during the grinding operation. If the raw mill is used to remove moisture from feed materials, it is also, by definition, a raw material dryer. The raw mill also includes the air separator associated with the raw mill.

* * * * *

Small, remote incinerator means an incinerator that combusts solid waste (as that term is defined by the Administrator pursuant to Subtitle D of RCRA) and has the capacity to combust 1 ton per day or less solid waste and is more than 50 miles driving distance to the nearest municipal solid waste landfill.

Solid waste incineration unit means a distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments or the general public (including single and multiple residences, hotels and motels). Such term does not include incinerators or other units required to have a permit under section 3005 of the Solid Waste Disposal Act. The term "solid waste incineration unit" does not include (A) materials recovery facilities (including primary or secondary smelters) which combust waste for the primary purpose of recovering metals, (B) qualifying small power production facilities, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 769(17)(C)), or qualifying cogeneration facilities, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), which burn homogeneous waste (such as units which burn tires or used oil, but not including refuse-derived fuel) for the production of electric energy or in the case of qualifying cogeneration facilities which burn homogeneous waste for the production of electric energy and steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes, or (C) 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.

* * * * *

Waste-burning kiln means a kiln that is heated, in whole or in part, by combusting solid waste (as that term is defined by the Administrator pursuant to Subtitle D of RCRA).

* * * * *

74. Table 1 to Subpart DDDD of Part 60 is revised to read as follows:

TABLE 1 TO SUBPART DDDD OF PART 60—MODEL RULE—INCREMENTS OF PROGRESS AND COMPLIANCE SCHEDULES

Comply with these increments of progress	By these dates[a]
Increment 1—Submit final control plan	(Dates to be specified in state plan).
Increment 2—Final compliance	(Dates to be specified in state plan)[b].

[a] Site-specific schedules can be used at the discretion of the state.

[b] The date can be no later than 3 years after the effective date of state plan approval or December 1, 2005 for CISWI units that commenced construction on or before November 30, 1999. The date can be no later than 3 years after the effective date of approval of a revised State plan or [THE DATE 5 YEARS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] for CISWI units that commenced construction on or before June 4, 2010.

75. Table 2 to subpart DDDD is amended by revising the heading and adding footnote b to read as follows:

Table 2 to Subpart DDDD of Part 60—Model Rule—Emission Limitations That Apply Before. [Date to be specified in state plan] [b]

* * * * *

[b] The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or [THE DATE 5 YEARS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER].

76. Table 5 of subpart DDDD is amended by:

a. Revising the entry for "Annual Report".

b. Revising the entry for "Emission limitation or operating limit deviation report".

TABLE 5 TO SUBPART DDDD OF PART 60—SUMMARY OF REPORTING REQUIREMENTS[A]

Report	Due date	Contents	Reference
* * *	* * *	*	
Annual report	No later than 12 months following the submission of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report.	• Name and address • Statement and signature by responsible official. • Date of report • Values for the operating limits • Highest recorded 3-hour average and the lowest 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported. • If a performance test was conducted during the reporting period, the results of the test. • If a performance test was not conducted during the reporting period, a statement that the requirements of §60.2720(a) or (b) were met. • Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours but less than 2 weeks.	§§60.2765 and 60.2770.
* * *	* * *	*	
Emission limitation or operating limit deviation report.	By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year.	• Dates and times of deviation • Averaged and recorded data for those dates. • Duration and causes of each deviation and the corrective actions taken. • Copy of operating limit monitoring data and any test reports.	§60.2775 and 60.2780

TABLE 5 TO SUBPART DDDD OF PART 60—SUMMARY OF REPORTING REQUIREMENTS[A]—Continued

Report	Due date	Contents	Reference
		• Dates, times and causes for monitor downtime incidents.	
* * *	* *	* *	*

[a] This table is only a summary, see the referenced sections of the rule for the complete requirements.

77. Table 6 to Subpart DDDD is added as follows:

TABLE 6 TO SUBPART DDDD OF PART 60-MODEL RULE-EMISSION LIMITATIONS THAT APPLY TO INCINERATORS ON AND AFTER [DATE TO BE SPECIFIED IN STATE PLAN] [a]

For the air pollutant	You must meet this emission limitation [b]	Using this averaging time	And determining compliance using this method
Cadmium	0.0013 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.
Carbon monoxide	2.2 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 10 of appendix A–4 of this part). Use a maximum allowable drift of 0.2 ppm and a span gas with a CO concentration of 10 ppm or less. The span gas must contain approximately the same concentration of CO_2 expected from the source.
Dioxins/furans (total mass basis).	0.031 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 23 of appendix A–7 of this part).
Dioxins/furans (toxic equivalency basis).	0.0025 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 23 of appendix A–7 of this part).
Hydrogen chloride	29 parts per million dry volume.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 26A of appendix A–8 of this part).
Lead	0.0026 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.
Mercury	0.0028 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 29 or 30B of appendix A–8 of this part).
Opacity	1%	Three 1-hour blocks consisting of ten 6-minute average opacity values.	Performance test (Method 9 of appendix A–4 of this part).
Oxides of nitrogen	34 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 7E of appendix A–4 of this part).
Particulate matter filterable	13 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 5 or 29 of appendix A–3 or appendix A–8 of this part).
Sulfur dioxide	2.5 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6c of appendix A–4 of this part. Use a maximum allowable drift of 0.2 ppm and a span gas with concentration of 5 ppm or less.
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period.	Three 1-hour observation periods.	Visible emission test (Method 22 of appendix A–7 of this part).

[a] The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or [THE DATE 5 YEARS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER].
[b] All emission limitations (except for opacity) are measured at 7% oxygen, dry basis at standard conditions.

78. Table 7 to Subpart DDDD is added as follows:

TABLE 7 TO SUBPART DDDD OF PART 60—MODEL RULE—EMISSION LIMITATIONS THAT APPLY TO ENERGY RECOVERY UNITS AFTER [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Cadmium	0.00041 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.
Carbon monoxide	150 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 10 of appendix A–4 of this part).
Dioxins/furans (total mass basis).	0.75 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 23 of appendix A–7 of this part).
Dioxins/furans (toxic equivalency basis).	0.059 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 23 of appendix A–7 of this part).
Hydrogen chloride	1.5 parts per million dry volume.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 26A of appendix A–8 of this part).
Lead	0.002 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.
Mercury	0.00096 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of appendix A of this part).
Opacity	1%	6-minute averages; 1-hour block average for units that operate dry control systems.	Continuous opacity monitoring (performance specification 1 of appendix B of this part), unless equipped with a wet scrubber.
Oxides of nitrogen	130 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 7E of appendix A–4 of this part).
Particulate matter filterable	9.2 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 5 or 29 of appendix A–3 or appendix A–8 of this part) if the unit has a design capacity less than or equal to 250 MMBtu/hr; or PM CEMS (performance specification 11 of appendix B of this part) if the unit has a design capacity greater than 250 MMBtu/hr.
Sulfur dioxide	4.1 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6c of appendix A–4 of this part. Use a span gas with a concentration of 20 ppm or less.
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period.	Three 1-hour observation periods.	Visible emission test (Method 22 of appendix A–7 of this part).

[a] All emission limitations (except for opacity) are measured at 7% oxygen, dry basis at standard conditions.

79. Table 8 to Subpart DDDD is added as follows:

TABLE 8 TO SUBPART DDDD OF PART 60—MODEL RULE—EMISSION LIMITATIONS THAT APPLY TO WASTE-BURNING KILNS AFTER [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Cadmium	0.0003 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of appendix A–8 of this part).
Carbon monoxide	710 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 10 of appendix A–4 of this part).
Dioxins/furans (total mass basis).	2.1 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 23 of appendix A–7 of this part).
Dioxins/furans (toxic equivalency basis).	0.17 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 23 of appendix A–7 of this part).
Hydrogen chloride	1.5 parts per million dry volume.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 26A of appendix A–8 of this part).
Lead	0.0027 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of appendix A–8 of this part).

TABLE 8 TO SUBPART DDDD OF PART 60—MODEL RULE—EMISSION LIMITATIONS THAT APPLY TO WASTE-BURNING KILNS AFTER [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]—Continued

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Mercury	0.024 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Mercury CEMS (performance specification 12A of appendix B of this part or mercury sorbent trap method specified in appendix K of part 75)
Opacity	4%	Three 1-hour blocks consisting of ten 6-minute average opacity values.	Performance test (Method 9 of appendix A–4 of this part).
Oxides of nitrogen	1100 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 7E of appendix A–4 of this part).
Particulate matter filterable	60 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 5 or 29 of appendix A–3 of this part).
Sulfur dioxide	410 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6c of appendix A–4 of this part.
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period.	Three 1-hour observation periods.	Visible emission test (Method 22 of appendix A–7 of this part).

[a] All emission limitations (except for opacity) are measured at 7% oxygen, dry basis at standard conditions.

80. Table 9 to Subpart DDDD is added as follows:

TABLE 9 TO SUBPART DDDD OF PART 60—MODEL RULE—EMISSION LIMITATIONS THAT APPLY TO BURN-OFF OVENS AFTER [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Cadmium	0.0045 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.
Carbon monoxide	80 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 10, 10A, or 10B of appendix A–4 of this part).
Dioxins/furans (total mass basis).	310 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 23 of appendix A–7 of this part).
Dioxins/furans (toxic equivalency basis).	25 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 23 of appendix A–7 of this part).
Hydrogen chloride	130 parts per million dry volume.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 26A of appendix A–8 of this part).
Lead	0.041 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 29 of appendix A–8 of this part). Use ICPMS for the analytical finish.
Mercury	0.014 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 29 of appendix A–8 of this part).
Opacity	2%	Three 1-hour blocks consisting of ten 6-minute average opacity values.	Performance test (Method 9 of appendix A–4 of this part).
Oxides of nitrogen	120 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 7E of appendix A–4 of this part).
Particulate matter filterable	33 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 5 or 29 of appendix A–3 or appendix A–8 of this part).
Sulfur dioxide	11 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6c of appendix A–4 of this part. Use a span gas with a concentration of 50 ppm or less.
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period.	Three 1-hour observation periods.	Visible emission test (Method 22 of appendix A–7 of this part).

[a] All emission limitations (except for opacity) are measured at 7% oxygen, dry basis at standard conditions.

81. Table 10 to Subpart DDDD is added as follows:

TABLE 10 TO SUBPART DDDD OF PART 60—MODEL RULE—EMISSION LIMITATIONS THAT APPLY TO SMALL, REMOTE INCINERATORS AFTER [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Cadmium	0.26 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 29 of appendix A–8 of this part).
Carbon monoxide	78 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 10 of appendix A–4 of this part).
Dioxins/furans (total mass basis).	1600 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 23 of appendix A–7 of this part).
Dioxins/furans (toxic equivalency basis).	130 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 23 of appendix A–7 of this part).
Hydrogen chloride	150 parts per million dry volume.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 26A of appendix A–8 of this part).
Lead	1.4 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 29 of appendix A–8 of this part).
Mercury	0.0029 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 29 of appendix A–8 of this part).
Opacity	13%	Three 1-hour blocks consisting of ten 6-minute average opacity values.	Performance test (Method 9 of appendix A–4 of this part).
Oxides of nitrogen	210 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 7E of appendix A–4 of this part).
Particulate matter filterable	240 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 5 or 29 of appendix A–3 or appendix A–8 of this part).
Sulfur dioxide	44 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6c of appendix A–4 of this part).
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period.	Three 1-hour observation periods.	Visible emission test (Method 22 of appendix A–7 of this part).

[a] All emission limitations (except for opacity) are measured at 7% oxygen, dry basis at standard conditions.

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