

Designated representative means any Coast Guard commissioned, warrant, or petty officer, including a Coast Guard coxswain, petty officer, or other officer operating a Coast Guard vessel and a Federal, State, and local officer designated by or assisting the Captain of the Port Maryland-National Capital Region (COTP) in the enforcement of the security zone.

(c) *Regulations.* (1) Under the general safety zone regulations in subpart D of this part, you may not enter the safety zone described in paragraph (a) of this section unless authorized by the COTP or the COTP's designated representative.

(2) To seek permission to enter, contact the COTP or the COTP's representative by telephone number 410-576-2693 or on Marine Band Radio VHF-FM channel 16 (156.8 MHz). Those in the safety zone must comply with all lawful orders or directions given to them by the COTP or the COTP's designated representative.

(d) *Enforcement periods.* This section will be enforced from August 20, 2025 until September 15, 2025, or earlier upon the safe departure or repair of the vessel.

Dated: August 20, 2025.

Patrick C. Burkett,

Captain, U.S. Coast Guard, Captain of the Port Sector Maryland-National Capital Region.

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 60 and 62

[EPA-HQ-OAR-2003-0119; FRL-12232-03-OAR]

RIN 2060-AW43

Commercial and Industrial Solid Waste Incineration Units: Temporary-Use Incinerators and Air Curtain Incinerators Used in Disaster Recovery

AGENCY: Environmental Protection Agency (EPA).

ACTION: Interim final rule; request for comment.

SUMMARY: The U.S. Environmental Protection Agency (EPA) is taking interim final action to provide for the temporary use of incineration units subject to commercial and industrial solid waste incinerator (CISWI) regulations during disaster recovery. Currently, only other solid waste incinerators (OSWI) are authorized to combust debris from a disaster or emergency on a temporary basis without

having to comply with applicable Clean Air Act (CAA) section 129 requirements. We are also authorizing such temporary use for incinerators (including air curtain incinerators (ACI)) subject to CISWI regulations by adding temporary-use provisions that essentially mirror those in the OSWI regulations to existing Federal CISWI rule subparts. The EPA is requesting comments on all aspects of this interim final rule and will consider all comments received after the conclusion of the comment period.

DATES: This interim final rule is effective on August 26, 2025. Comments on this rule must be received on or by October 10, 2025.

Public Hearing. If anyone contacts us requesting a public hearing on or before August 31, 2025, the EPA will hold a virtual public hearing on September 10, 2025. See the **SUPPLEMENTARY INFORMATION** section for information on requesting and registering for a public hearing.

ADDRESSES: You may send comments, identified by Docket ID No. EPA-HQ-OAR-2003-0119, by any of the following methods:

- **Federal eRulemaking Portal:** www.regulations.gov (our preferred method). Follow the online instructions for submitting comments.
- **Email:** a-and-r-docket@epa.gov. Include Docket ID No. EPA-HQ-OAR-2003-0119 in the subject line of the message.
- **Mail:** U.S. Environmental Protection Agency, EPA Docket Center, Docket ID No. EPA-HQ-OAR-2003-0119, Mail Code 28221T, 1200 Pennsylvania Avenue NW, Washington, DC 20460.
- **Hand/Courier Delivery:** EPA Docket Center, WJC West Building, Room 3334, 1301 Constitution Avenue NW, Washington, DC 20004. The Docket Center's hours of operation are 8:30 a.m.–4:30 p.m., Monday–Friday (except Federal holidays).

Instructions: All submissions received must include the Docket ID No. for this rule. Comments received may be posted without change to www.regulations.gov, including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: For questions about the rule regarding the temporary use of incinerators subject to CISWI regulations during disaster recovery, contact Dr. Felica Davis, Sector Policies and Programs Division (E143-03), Office of Air Quality

Planning and Standards, U.S. Environmental Protection Agency, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North Carolina, 27711; telephone number: (919) 541-4857 and email address: davis.felica@epa.gov.

SUPPLEMENTARY INFORMATION:

Docket. The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2003-0119. All documents in the docket are listed at www.regulations.gov. Although listed, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy. With the exception of such material, publicly available docket materials are available electronically in www.regulations.gov.

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 without change and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be CBI, Proprietary Business Information (PBI), or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI, PBI, or otherwise protected through www.regulations.gov or email. This type of information should be submitted as discussed below.

The EPA may publish any comment received to its public docket. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the Web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI, PBI, or multimedia submissions, and general guidance on making effective comments, please visit www.epa.gov/dockets/commenting-epa-dockets.

The www.regulations.gov website allows you to submit your comment anonymously, which means the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to the EPA

without going through www.regulations.gov, your email 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, the EPA recommends that you include your name and other contact information in the body of your comment and with any digital storage media you submit. If the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment. Electronic files should not include special characters or any form of encryption and should be free of any defects or viruses. For additional information about the EPA's public docket, visit the EPA Docket Center homepage at www.epa.gov/dockets.

Submitting CBI. Do not submit information containing CBI to the EPA through www.regulations.gov or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information on any digital storage media that you mail to the EPA, mark the outside of the digital storage media as CBI and then identify electronically within the digital storage media the specific information that is claimed as CBI. In addition to one complete version of the comments that includes information claimed as CBI, you must submit a copy of the comments that does not contain the information claimed as CBI directly to the public docket through the procedures outlined in the *Instructions* section above. If you include other information whose disclosure is restricted by statute in your comment, clearly mark your submission as including that information. If you submit any digital storage media that does not contain CBI, mark the outside of the digital storage media clearly that it does not contain CBI and note the docket ID. Information not marked as CBI will be included in the public docket and the EPA's electronic public docket without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 Code of Federal Regulations (CFR) part 2. Information whose disclosure is otherwise restricted by statute will be processed by the EPA Docket Center in accordance with the applicable statute.

Our preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol (FTP), or other online file sharing services (e.g., Dropbox, OneDrive, Google Drive). Electronic submissions must be transmitted

directly to the Office of Air Quality Planning and Standards (OAQPS) CBI Office at the email address oaqps_cbi@epa.gov, and as described above, should include clear CBI markings and note the docket ID. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqps_cbi@epa.gov to request a file transfer link. If sending CBI information through the postal service, please send it to the following address: OAQPS Document Control Officer (C404-02), OAQPS, U.S. Environmental Protection Agency, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North Carolina, 27711, Attention Docket ID No. EPA-HQ-OAR-2003-0119. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope. Note that written comments containing CBI and submitted by mail may be delayed and no hand deliveries will be accepted.

Participation in virtual public hearing. To request a virtual public hearing, contact the public hearing team at (888) 627-7764 or by email at AQPDpublichearing@epa.gov. If requested, the public hearing will be held via virtual platform on September 10, 2025. The EPA will announce additional details on the virtual public hearing at <https://www.epa.gov/stationary-sources-air-pollution/commercial-and-industrial-solid-waste-incineration-units-ciswi-new>. The EPA may close a session 15 minutes after the last pre-registered speaker has testified if there are no additional speakers.

If a public hearing is requested, the EPA will begin pre-registering speakers for each hearing no later than 1 business day following publication of this document in the **Federal Register**. The EPA will accept registrations on an individual basis. To register to speak at the virtual hearing, please contact the public hearing team at (888) 627-7764 or email at AQPDpublichearing@epa.gov. The last day to pre-register to speak at the public hearing will be September 7, 2025. Prior to the hearing, the EPA will post a general agenda that will list pre-registers speakers at: <https://www.epa.gov/stationary-sources-air-pollution/commercial-and-industrial-solid-waste-incineration-units-ciswi-new>.

The EPA will make every effort to follow the schedule as closely as possible on the day of the hearing; however, please plan for the hearings to run either ahead of schedule or behind schedule.

Each commenter will have 4 minutes to provide oral testimony. The EPA encourages commenters to provide the EPA with a copy of their oral testimony electronically (via email) by emailing it to AQPDpublichearing@epa.gov. The EPA also recommends submitting the text of your oral testimony as written comments to the rulemaking docket.

The EPA may ask clarifying questions during the oral presentations but will not respond to the presentations at that time. Written statements and supporting information submitted during the comment period will be considered with the same weight as oral testimony and supporting information presented at the public hearing.

Please note that any updates made to any aspect of the hearing will be posted online at <https://www.epa.gov/stationary-sources-air-pollution/commercial-and-industrial-solid-waste-incineration-units-ciswi-new>. While the EPA expects the hearing to be conducted as set forth earlier, please monitor our website or contact the public hearing team at (888) 627-7764 or by email at AQPDpublichearing@epa.gov to determine if there are any updates. The EPA does not intend to publish a document in the **Federal Register** announcing updates. If you require the services of a translator or special accommodation such as audio description, please pre-register for the hearing with the public hearing team and describe your needs by September 2, 2025. The EPA may not be able to arrange accommodations without advanced notice.

Children's Environmental Health. Since we cannot predict when or how many units will need to use the temporary-use exemption or what debris will need to be burned after a disaster, we were unable to do an analysis to determine impacts on children's health.

Preamble acronyms and abbreviations. Throughout this preamble the use of "we," "us," or "our" is intended to refer to the EPA. We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

ACI Air Curtain Incinerator
CAA Clean Air Act
CBI Confidential Business Information
CFR Code of Federal Regulations
CISWI Commercial and Industrial Solid Waste Incinerator
EG Emissions Guidelines
EPA Environmental Protection Agency
FR Federal Register
ICR Information Collection Request
NSPS New Source Performance Standards

OMB Office of Management and Budget
 OSWI Other Solid Waste Incinerator
 PBI Proprietary Business Information
 PRA Paperwork Reduction Act
 RFA Regulatory Flexibility Act
 TPD Tons Per Day
 UMRA Unfunded Mandates Reform Act

Organization of this document. The information in this preamble is organized as follows:

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 - K. National Technology Transfer and Advancement Act (NTTAA)
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I. General Information

A. Does this action apply to me?

Categories and entities potentially affected by this rulemaking are those that operate incinerators (including ACI) subject to CISWI New Source Performance Standards (NSPS) (40 CFR part 60, subpart CCCC), Federal Plan (40 CFR part 62, subpart IIIa), or Emissions Guidelines (EG) (40 CFR part 60, subpart DDDD) (hereinafter collectively referred to as "CISWI"). If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

B. Where can I get a copy of this document and other related information?

The EPA has established a docket for this action under Docket ID No. EPA–HQ–OAR–2003–0119. Following signature by the EPA Administrator, the EPA also will post a copy of this document to <https://www.epa.gov/stationary-sources-air-pollution/commercial-and-industrial-solid-waste-incineration-units-ciswi-new>.

C. Judicial Review

Under CAA section 307(b)(1), judicial review of this final action is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by October 27, 2025. Under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce the requirements.

II. Background

A. What is the Agency's statutory authority for this action?

CAA section 129, entitled "Solid Waste Combustion," requires the EPA to develop and adopt NSPS and EG for solid waste incineration units pursuant to CAA section 111.¹ Section 111(b) of the CAA requires the EPA to establish NSPS for new sources, and CAA section 111(d) requires the EPA to establish procedures for States to submit plans for implementing EG for existing sources. The EPA promulgates Federal implementation plans to regulate existing sources where there are no approved State plans.

CAA section 129(a)(1) identifies five categories of solid waste incineration units and requires emissions standards for each category. The five categories of solid waste incineration units are:

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

While the CAA specifically describes four of the five listed categories by the types of wastes burned, it leaves unspecified the "other categories of

solid waste incineration units." As the EPA observed during the development of standards for OSWI, Congress could have unambiguously required OSWI to cover every other possible type of incineration unit burning any type of solid waste but did not to do so, thereby leaving the EPA discretion to delineate those "other" categories of solid waste incineration units. 70 FR 74870, 74875 (December 16, 2005). Based on that authority, the EPA defined OSWI to include very small municipal combustion units and institutional waste combustion incineration units. The EPA analyzed and excluded various types of incinerators from being subject to CAA section 129 standards; among those excluded are incinerators when used on a temporary basis to combust debris during disaster recovery. The EPA determined that some incinerators "should be handled differently due to unusual circumstances (e.g., unique geographic locations or climatic factors, temporary emergency use)" that would render compliance with CAA section 129 rules infeasible. *Id.* at 74875. With respect to incinerators for temporary emergency use, the EPA observed that "[i]n emergency situations, quick removal of debris is of utmost importance to maintain public health and safety. Depending on the type of emergency and the local situation, there may be no reasonable and safe alternatives to incineration." *Id.* At 74880.

The EPA also observed that some control devices, such as a wet scrubber, may not operate as required under CAA section 129 during the disaster recovery period because "the water supply, handling and treatment capabilities required to operate a wet scrubber may be unavailable for long periods of time in the disaster areas, while the need for recovery is immediate," rendering it infeasible to comply with CAA section 129 rules during emergency temporary use when the standards in questions were based on the use of control technologies like wet scrubbers. *Id.* at 74880. In addition, "regulation would hinder the recovery effort, and this impact would outweigh the benefits from regulation of the units." *Id.* at 74879. Accordingly, the EPA exercised its discretion under CAA section 129(a)(1)(5) to define the scope of OSWI to exclude incinerators from being subject to CAA section 129 standards and associated requirements when they are used to combust debris during disaster recovery. To qualify for this exclusion, an incinerator "must be used to combust debris in an area declared a State of Emergency by a local or State

¹ CAA section 129(a)(1)(A), 42 U.S.C. 7429(a)(1)(A).

government, or the President, under the authority of the Stafford Act, has declared that an emergency or a major disaster exists in the area.” 40 CFR 60.2969 (OSWI NSPS); *see also* 40 CFR 60.3061 (OSWI EG). In addition, owners and operators must follow the notification requirements in the temporary-use provisions. *Id.*

Because these temporary-use provisions are codified in the Federal OSWI regulations, they are currently limited to incinerators subject to the Federal OSWI regulations. The EPA has realized that States need more incinerators for emergency/disaster debris cleanup, and some have requested the temporary use of CISWI for such purpose. Therefore, based on the same authority and for the same reasons explained in the 2005 OSWI rule² and here in section II.B. of this preamble, the EPA is including similar temporary-use provisions for disaster recovery in CISWI regulations, thereby extending such temporary use to incinerators at commercial and industrial facilities.

CAA section 129(a)(1)(C) requires that the EPA establish standards for “solid waste incineration units combusting commercial and industrial wastes.” However, this action provides for the temporary use of CISWI during disaster recovery to burn debris (which is defined in the Webster Dictionary as remains of materials broken or destroyed, in this case by a natural disaster or emergency); the temporary-use provisions do not apply to combustion of commercial and industrial wastes (*i.e.*, wastes generated by commercial and industrial facilities) for which standards are required under CAA section 129(a)(1)(C). The EPA, therefore, concludes that incinerators at commercial and industrial facilities need not comply with CAA section 129 emission standards and associated requirements for CISWI while they are used on a temporary basis to combust non-hazardous, disaster related debris, not waste from their normal operations.

Please note that while the EPA is amending the CISWI EG (40 CFR part 60, subpart DDDD), along with the CISWI NSPS and Federal plan, to include the temporary-use provisions, the CISWI EG does not directly apply to existing CISWI covered by that EG. However, States may revise their State plans implementing 40 CFR part 60, subpart DDDD to add the temporary-use provisions that are now in 40 CFR part 60, subpart DDDD, thereby allowing their existing CISWI to be used temporarily for emergency/disaster

debris cleanup without complying with their CAA section 129 standards during that period.

B. What is the regulatory history for this action?

In 2005, the EPA promulgated the OSWI NSPS (40 CFR part 60, subpart EEEE) and EG (40 CFR part 60, subpart FFFF). 70 FR 74870 (December 16, 2005). Those regulations established CAA section 129 standards and associated requirements for OSWI and also allow temporary use of incinerators to burn debris during disaster recovery without complying with such standards as would apply under ordinary circumstances. Because these OSWI regulations are currently the only CAA section 129 regulations with such temporary-use provisions, only incinerators subject to OSWI NSPS or State plans implementing OSWI EG may be used on a temporary basis to combust debris from a disaster or emergency without complying with CAA section 129 requirements during that period.

On January 24, 2025, President Trump issued Executive Order (E.O.) 14181, “Emergency Measures to Provide Water Resources in California and Improve Disaster Response in Certain Areas” to expedite cleanup of the catastrophic wildfires in Los Angeles County.³ Executive Order 14181 sparked renewed awareness of regulatory challenges associated with disaster recovery. When Hurricane Helene seriously impacted many States on the Eastern seaboard in September 2024, the EPA could not grant North Carolina’s request to use CISWI to combust disaster-related non-hazardous debris without complying with CAA section 129 standards because the CISWI regulations did not have temporary-use provisions like those in the OSWI regulations.

C. What action is the EPA taking?

As incinerators are useful for disaster/emergency cleanup and recovery efforts that directly implicate and benefit human health and the environment, the EPA does not want to hinder the temporary use of incinerators during these types of events. To respond to this need, in this rule, the EPA is including in the CISWI regulations temporary-use provisions similar to those in the Federal OSWI regulations. As amended, the EPA’s regulations will now provide that CISWI used on a temporary basis to combust debris from a disaster or emergency such as a tornado, hurricane, flood, ice storm, high winds, or act of

bioterrorism need not comply with otherwise applicable CAA section 129 requirements when used for such purposes and the requirements of the regulation for such use are satisfied. Such temporary-use provisions are provided in the following CAA section 129 regulations:

- 40 CFR part 60, subpart CCCC—Standards of Performance for Commercial and Industrial Solid Waste Incineration Units

- 40 CFR part 60, subpart DDDD—Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units

- 40 CFR part 62, subpart IIIa—Federal Plan Requirements for Commercial and Industrial Solid Waste Incineration Units That Commenced Construction On or Before June 4, 2010, and Have Not Been Modified or Reconstructed Since August 7, 2013

As discussed in section II.A of this preamble, the temporary-use provisions in 40 CFR part 60, subpart DDDD do not directly apply to existing sources.

However, States may amend their State plans implementing 40 CFR part 60, subpart DDDD to include these temporary-use provisions.

III. What are the actions and rationale for this rulemaking?

A. Temporary Use of CISWI During Disaster Recovery

The EPA is amending CISWI regulations to establish temporary-use disaster recovery and emergency provisions similar to those in the Federal OSWI regulations. Accordingly, like OSWI units, CISWI units used to combust debris during qualifying disaster events will no longer be bound by the CAA section 129 emission standards that apply during ordinary circumstances as long as they meet the conditions for these temporary-use provisions. Specifically, CISWI units may only be used to combust debris in an area that has been declared as a State of Emergency by a local or state government or where the President, under the authority of the Stafford Act, has declared that an emergency or a major disaster exists in the area. Under these temporary-use provisions, debris that is combusted is any non-hazardous material that must be the remains of something that was destroyed, broken, or discarded as a result of a disaster or emergency such as a tornado, hurricane, flood, ice storm, high winds, or act of bioterrorism. During the disaster recovery period, the CISWI cannot burn waste from normal operations at their facilities. As explained further below, owners and or operators must follow the

³ Executive Order 14181, Emergency Measures to Provide Water Resources in California and Improve Disaster Response in Certain Areas, 90 FR 8747 (January 24, 2025).

² 70 FR 74875 and 74879 (December 16, 2005).

notification requirements specified in the temporary-use provisions.

In addition, under the CISWI temporary-use provisions, control devices installed to comply with CISWI NSPS, the CISWI Federal plan, or a State plan implementing CISWI EG would continue operation during temporary-use status unless it is not technically feasible to do so due to conditions in the disaster recovery area.⁴ Examples of infeasibility to operate include insufficient electricity to operate a control device, lack of water to operate a wet scrubber or quench, and inability to get replacement supplies such as activated carbon or parts for maintenance because of the impacts of the disaster at issue.

We believe that during the disaster recovery period, regulatory requirements for CISWI that apply during ordinary circumstances are not appropriate for incinerators that are burning only non-hazardous debris and only long enough to complete the recovery tasks; these incinerators are not used as long-term waste disposal devices that CAA section 129 standards are designed to regulate. Also, as the EPA previously explained, “in emergency situations, quick removal of debris is of utmost importance to maintain public health and safety, and temporary-use incinerators may be best suited to dispose of debris.” 70 FR 74879 (December 16, 2005) The EPA, therefore, elected not to require OSWI compliance with the CAA section 129 standards that apply under ordinary circumstances when they are used on a short-term basis to burn debris during disaster recovery, noting that such “regulation would hinder the recovery effort, and this impact would outweigh the benefits from regulation of the units.” *Id.* The EPA found that:

“this proactive approach, which addresses the terms for use of a temporary-use incinerator during declared emergencies or disasters, is better than an approach that requires the EPA and others to react during or immediately after such an emergency or disaster strikes. We also point out that States and the Federal Government have specific procedures that are followed in declaring an area a State of Emergency

or a major disaster area. Their procedures involve extensive involvement by local, State, and Federal officials to conduct a preliminary damage assessment, develop debris removal plans, and coordinate and manage disaster assistance activities.” *Id.*

While owners or operators do not have to meet the emission limitations or other requirements applicable to the CISWI during this period as long as they follow the temporary-use provisions, failure to do so would mean that the temporary use is improperly invoked; in that event, the incinerator remains subject to the CISWI regulations that would normally apply, and the incinerator could be found to be in violation if it is not in compliance.

B. Temporary-Use Period and Notifications

Similar to the OSWI regulations, the EPA is not requiring notification of temporary use of CISWI for disaster recovery that lasts 8 consecutive weeks or less (beginning on the date the unit starts operation in response to a disaster or emergency). If the incinerator will be used for longer than 8 weeks, the owner or operator must notify the Administrator and request permission to continue to operate. The notification must be submitted in writing by the date 8 weeks after the temporary-use incinerator starts operation and must include the date the incinerator started operation within the boundaries of the current emergency or disaster declaration area, identification of the disaster or emergency for which the incinerator is being used, a description of the types of materials being burned in the incinerator, a brief description of the size and design of the unit, including any existing control devices, the reasons the incinerator must be operated for more than eight weeks, the amount of time for which the owner or operator requests permission to operate, including the date the unit is expected to cease operation, and, if applicable, a brief description of why the control devices are infeasible to operate due to the disaster.

After notifying the Administrator in accordance with the above, the owner or operator may extend operation for an additional 8 weeks for a total of 16 weeks from the date the unit started operation. Owners or operators do not have to meet the emission limitations or other requirements applicable to the CISWI during this period. This and the ability to start temporary use without notification during the first 8 weeks are aimed to ease the burden during or

immediately after a disaster or emergency.

If the request is for a period beyond another 8 weeks, at the end of 16 weeks from the date the CISWI started operation within the boundaries of the current emergency or disaster declaration area, the owner or operator must cease operation of the unit or comply with all requirements, unless the Administrator has approved in writing your request to continue operation for the requested period.

Upon the effective date of this rule, the temporary-use provisions are effective immediately for incinerators subject to CISWI NSPS (40 CFR part 60, subpart CCCC) and the Federal plan (40 CFR part 62, subpart IIIa). The EPA is adding the same temporary-use provisions in the CISWI EG, 40 CFR part 60, subpart DDDD, which would allow States to amend their State plans for existing CISWI to incorporate this temporary-use provision.

IV. Rulemaking Procedures

The EPA’s authority for the rulemaking procedures followed in this action is provided by Administrative Procedure Act (APA) section 553(b)(B), 5 U.S.C. 553(b)(B), which allows an agency to forego prior notice and comment “when the agency for good cause finds (and incorporates the finding and a brief statement of reasons therefore in the rule issued) that notice and public procedure thereon are impracticable, unnecessary, or contrary to the public interest.”⁵ This action is being issued without prior notice or opportunity for public comment because the EPA finds that prior notice and comment would be impracticable, unnecessary, and contrary to the public interest under the circumstances.

As discussed in section II of this preamble, this interim final rule amends the EPA’s CISWI regulations to include temporary use provisions for incinerators during disaster recovery that are essentially the same as those in the existing OSWI regulations.

Prior notice and comment on the temporary-use provisions would be impracticable given the demonstrated need for enhanced disaster recovery capacity. Recent disaster events have demonstrated that more incinerators are needed in disaster recovery efforts. Because hurricane, flood, and wildfire

⁴ In promulgating the temporary use provisions in the OSWI rules, the EPA recognized that there may be instances where it is not technically feasible to operate a control device through the entire duration of a disaster recovery period. (70 FR 74880; December 16, 2005). Likewise, in this rule, the EPA is requiring that existing controls continue to operate during the temporary use period if technically feasible, thereby acknowledging potential operational issues during such period but minimizing emissions where there are not such issues.

⁵ Although the procedural requirements of CAA section 307(d) apply to the EPA’s promulgation or revision of any standard or requirement under CAA section 129, these procedural requirements do not apply “in the case of any rule or circumstance referred to in subparagraphs (A) or (B) of [APA section 553(b)].” CAA section 307(d)(1), 42 U.S.C. 7607(d)(1).

seasons are all underway, with new events continuously creating a critical demand for this authority, the EPA must take immediate action to put in place these temporary-use provisions to ensure that more incinerators are available for recovery efforts during and following emergencies and major disasters. Prior notice and comment would be impracticable given the purpose of this rulemaking to address pressing need, as standard procedures would result in delaying final action until the conclusion of many of this year's disaster seasons.

Prior notice and comment would be unnecessary because these changes are essentially the same temporary-use provisions as the long-standing OSWI temporary-use provisions that have been implemented in various disaster recovery efforts, including those in North Carolina following Hurricane Helene in September 2024. The OSWI temporary-use provisions underwent notice and comment, which the EPA considered before finalizing. It is, therefore, unnecessary to provide a new round of notice and comment on essentially the same provisions.

In addition to adopting the OSWI temporary-use provisions, the temporary-use provisions for CISWI include a condition that existing controls remain operating during the temporary-use period unless operation is infeasible due to the disaster. This condition minimizes emissions during disaster recovery and creates no additional burden on the CISWI owners and operators as the controls are already in place and operating. We, therefore, do not consider that the addition of this condition warrants a new round of notice and comment.

For much the same reasons, the EPA finds that prior notice and comment would be contrary to the public interest under the circumstances. As explained further below with respect to the effective date for this action, the public interest is furthered by an immediate availability of the allowances already afforded to OSWI units to CISWI units because of the pressing need for rapid and effective disaster relief where such circumstances are present. The EPA has successfully administered the same allowances for OSWI units for decades without experiencing significant drawbacks and is committed to reviewing and responding to public comments and revising this action if appropriate.

This rule is effective immediately upon publication. Section 553(d) of the APA requires publication of the final rule to precede the effective date by at least 30 days unless, as relevant here,

the Agency finds good cause to make the rule effective immediately upon publication under APA section 553(d)(3).⁶ For the reasons explained below, the Agency finds that there is good cause to make this rule effective immediately upon publication.

The public has a strong interest to have this rule take effect as quickly as possible considering recent flooding in Texas, New Mexico, and North Carolina, and the fact that hurricane season and the peak of wildfire season are underway. The regulated community needs little, if any, time to prepare for this rule, which adds no new burden to the owners and operators of the incinerators during the temporary-use period. The only requirement is to send a notice to the EPA if the units are to be used longer than 8 weeks. This routine notification requirement requires minimal resources and would not come into play for any unit until well after the default 30 day delayed effectiveness period. For the reasons provided above, the Agency finds that there is good cause to make this rule effective immediately upon publication. APA section 553(d)(1) also justifies making the action effective immediately as it "grants or recognizes an exemption or relieves a restriction." The temporary-use provisions relieve a restriction because they provide relaxed requirements for when CISWI units are used temporarily to combust debris in an area declared a State of Emergency that meets the requirements set out in this action.

V. Summary of Cost, Environmental, and Economic Impacts

This rule will allow for the temporary use of CISWI during a qualifying disaster. Facilities with CISWI that use the disaster recovery temporary-use provisions are not subject to additional control requirements; in fact, they do not need to meet the CAA section 129 requirements during this temporary-use period. Therefore, we anticipate there will not be any additional compliance costs. As cleanup responses are required during and following a disaster or emergency, we anticipate this action to add zero or de minimis environmental impacts due to this action supplanting alternative combustion options.

⁶ See *Omnipoint Corp. v. FCC*, 78 F.3d 620, 630 (D.C. Cir. 1996) (in determining whether good cause exists to make a rule immediately effective, an agency should "balance the necessity for immediate implementation against principles of fundamental fairness which require that all affected persons be afforded a reasonable amount of time to prepare for the effective date of its ruling").

VI. Request for Comment

As explained in section IV of this preamble, the EPA finds good cause to issue this interim final rule without prior notice or opportunity for public comment. However, the EPA is providing an opportunity for the public to comment on the temporary-use provisions established in this final rule and requests comment on the provisions described herein. The EPA will review comments received and consider whether the provisions should be revised, if appropriate, in response to comments received.

VII. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at www.epa.gov/laws-regulations/laws-and-executive-orders.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was, therefore, not submitted to the Office of Management and Budget (OMB) for review.

B. Executive Order 14192: Unleashing Prosperity Through Deregulation

This action is considered an Executive Order 14192 deregulatory action. This final rule provides burden reduction during emergency and disaster recovery with the temporary-use provisions for CISWI.

C. Paperwork Reduction Act (PRA)

The information collection activities in this rule have been submitted for approval to OMB under the PRA. The information collection request (ICR) documents that the EPA prepared have been assigned EPA ICR number 7811.01 (subpart CCCC) and number 7812.01 (subpart DDDD). You can find a copy of the ICRs in the docket for this rule, and it is briefly summarized here. The information collection requirements are not enforceable until OMB approves them.

This action amends the current requirements in 40 CFR part 60 subparts CCCC and DDDD and 40 CFR part 62 subpart IIIa to allow owners and operators to temporarily combust debris associated with disaster recovery. As part of these new requirements, owners and operators must submit a notification to the Administrator whenever an incinerator is used to combust this type of debris for more than 8 weeks. There are no other changes to the notification, recordkeeping, and reporting requirements in these subparts. These

notifications, reports, and records are essential in determining compliance with the applicable subpart.

Respondents/affected entities: Owners and operators of new and existing CISWI units.

Respondent's obligation to respond: Mandatory if temporary use exceeds 8 weeks (40 CFR part 60, subpart CCCC, 40 CFR part 60, subpart DDDD, and 40 CFR part 62, subpart IIIa).

Estimated number of respondents: 92 (16 for 40 CFR part 60, subpart CCCC and 76 for 40 CFR part 60, subpart DDDD and 40 CFR part 62, subpart IIIa), of which the EPA estimates that approximately 4.3 (1.6 and 2.7 for new and existing units, respectively) will be subject to this new notification requirement annually.

Frequency of response: As needed for disaster recovery.

Total estimated burden: 2,230 hours per year for 40 CFR part 60, subpart CCCC and 8,660 hours per year for 40 CFR part 60, subpart DDDD and 40 CFR part 62, subpart IIIa, of which the EPA estimates approximately 3.7 and 6.2 burden hours, respectively, are associated with this notification annually. Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: \$1,530,000 (per year) for 40 CFR part 60, subpart CCCC and 13,500,000 (per year) for 40 CFR part 60, subpart DDDD and 40 CFR part 62, subpart IIIa, of which the EPA estimates that approximately \$529 and \$893, respectively, are associated with this notification annually.

An agency may not conduct or sponsor, and a person is not required to respond to, an ICR unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9. When OMB approves this ICR, the Agency will announce that approval in the **Federal Register** and publish a technical amendment to 40 CFR part 9 to display the OMB control number for the approved information collection activities contained in this final rule.

D. Regulatory Flexibility Act (RFA)

This action is not subject to the RFA. The RFA applies only to rules subject to notice and comment rulemaking requirements under the APA, 5 U.S.C. 553, or any other statute. This rule is not subject to notice-and-comment requirements because the Agency has invoked the APA "good cause" exemption under 5 U.S.C. 553(b).

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or more (in 1995 dollars) as described in the UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. This action imposes no enforceable duty on any state, local or Tribal governments or the private sector.

F. Executive Order 13132: Federalism

This action 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.

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

This action does not have Tribal implications. It will neither impose substantial direct compliance costs on Federally recognized Tribal governments, nor preempt Tribal law. Thus, Executive Order 13175 does not apply to this action.

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

Executive Order 13045 directs Federal agencies to include an evaluation of the health and safety effects of the planned regulation on children and explain why the regulation is preferable to potentially effective and reasonably feasible alternatives. This action is not subject to Executive Order 13045 because it is not a significant regulatory action under section 3(f)(1) of Executive Order 12866 and because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. Emissions changes are projected to be zero or de minimis, and therefore effects on children's health would also be zero or de minimis.

However, EPA's *Policy on Children's Health* applies to this action. Information on how the Policy was applied is available under "Children's Environmental Health" in the Supplementary Information section of this preamble.

I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211, because it is not a

significant regulatory action under Executive Order 12866.

J. National Technology Transfer and Advancement Act (NTTAA)

This rulemaking does not involve technical standards.

K. Congressional Review Act

This action is subject to the Congressional Review Act (CRA), and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

List of Subjects

40 CFR Parts 60 and 62

Environmental protection, Administrative practice and procedures, Air pollution control, Reporting and recordkeeping requirements.

Lee Zeldin,
Administrator.

For the reasons stated in the preamble, the Environmental Protection Agency amends 40 CFR parts 60 and 62 as follows:

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

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

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

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

■ 2. Under the undesignated center heading "Applicability" add § 60.2041 to read as follows:

§ 60.2041 What are the requirements for temporary-use incinerators and air curtain incinerators used in disaster recovery?

(a) If your CISWI or air curtain incinerator is used on a temporary basis to combust debris from a disaster or emergency such as a tornado, hurricane, flood, ice storm, high winds, or act of bioterrorism, it is excluded from the requirements of this subpart during the temporary-use period permitted under paragraphs (b) through (d) of this section as long as your CISWI or air curtain incinerator is used in accordance with paragraph (a) of this section. To qualify for this exclusion, the CISWI or air curtain incinerator may only be used to combust debris in an area declared a State of Emergency by a local or state government, or the President, under the authority of the

Stafford Act, has declared that an emergency or a major disaster exists in the area. If your CISWI or air curtain incinerator is equipped with a control device, you must continue to run that control device in order to qualify for this exclusion, unless the control device is infeasible to operate as a result of the disaster. Additionally, you must follow the requirements specified in paragraphs (b) through (d) of this section.

(b) If the CISWI or air curtain incinerator is used in accordance with paragraph (a) of this section during a period that begins on the date the unit started operation and lasts 8 weeks or less within the boundaries of the same emergency or disaster declaration area, then it is excluded from the requirements of this subpart. You do not need to notify the Administrator of its use or meet the emission limitations or other requirements of this subpart.

(c) If the CISWI or air curtain incinerator will be used during a period that begins on the date the unit started operation and lasts more than 8 weeks within the boundaries of the same emergency or disaster declaration area, you must notify the Administrator that the temporary-use CISWI or air curtain incinerator will be used for more than 8 weeks and request permission to continue to operate the unit as specified in paragraphs (c)(1) and (2) of this section.

(1) The notification must be submitted in writing by the date 8 weeks after you start operation of the temporary-use CISWI or air curtain incinerator within the boundaries of the current emergency or disaster declaration area.

(2) The notification must contain the date the CISWI or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, identification of the disaster or emergency for which the CISWI or air curtain incinerator is being used, a description of the types of materials being burned in the CISWI or air curtain incinerator, a brief description of the size and design of the unit (for example, an air curtain incinerator or a modular starved-air incinerator), the reasons the CISWI or air curtain incinerator must be operated for more than 8 weeks, and the amount of time for which you request permission to operate including the date you expect to cease operation of the unit.

(d) If you submitted the notification containing the information in paragraph (c)(2) of this section, by the date specified in paragraph (c)(1) of this section, you may continue to operate the CISWI or air curtain incinerator for

another 8 weeks, which is a total of 16 weeks from the date the unit started operation within the boundaries of the current emergency or disaster declaration area, so long as control devices continue to run as able. You do not have to meet the emission limitations or other requirements of this subpart during this period.

(1) At the end of 16 weeks from the date the CISWI or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, you must cease operation of the unit or comply with all requirements of this subpart, unless the Administrator has approved in writing your request to continue operation.

(2) If the Administrator has approved in writing your request to continue operation, then you may continue to operate the CISWI or air curtain incinerator within the boundaries of the current emergency or disaster declaration area until the date specified in the approval, and you do not need to comply with any other requirements of this subpart during the approved time period.

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

■ 3. Under the undesignated center heading “Applicability of State Plans” add § 60.2556 to read as follows:

§ 60.2556 What are the requirements for temporary-use incinerators and air curtain incinerators used in disaster recovery?

(a) If your CISWI or air curtain incinerator is used on a temporary basis to combust debris from a disaster or emergency such as a tornado, hurricane, flood, ice storm, high winds, or act of bioterrorism, it is excluded from the requirements of this subpart during the temporary-use period permitted under paragraphs (b) through (d) of this section as long as your CISWI or air curtain incinerator is used in accordance with paragraph (a) of this section. To qualify for this exclusion, the CISWI or air curtain incinerator may only be used to combust debris in an area declared a State of Emergency by a local or state government, or the President, under the authority of the Stafford Act, has declared that an emergency or a major disaster exists in the area. If your CISWI or air curtain incinerator is equipped with a control device, you must continue to run that control device in order to qualify for this exclusion, unless the control device is infeasible to operate as a result of the disaster. Additionally, you must follow

the requirements specified in paragraphs (b) through (d) of this section.

(b) If the CISWI or air curtain incinerator is used in accordance with paragraph (a) of this section during a period that begins on the date the unit started operation and lasts 8 weeks or less within the boundaries of the same emergency or disaster declaration area, then it is excluded from the requirements of this subpart. You do not need to notify the Administrator of its use or meet the emission limitations or other requirements of this subpart.

(c) If the CISWI or air curtain incinerator will be used during a period that begins on the date the unit started operation and lasts more than 8 weeks within the boundaries of the same emergency or disaster declaration area, you must notify the Administrator that the temporary-use CISWI or air curtain incinerator will be used for more than 8 weeks and request permission to continue to operate the unit as specified in paragraphs (c)(1) and (2) of this section.

(1) The notification must be submitted in writing by the date 8 weeks after you start operation of the temporary-use CISWI or air curtain incinerator within the boundaries of the current emergency or disaster declaration area.

(2) The notification must contain the date the CISWI or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, identification of the disaster or emergency for which the CISWI or air curtain incinerator is being used, a description of the types of materials being burned in the CISWI or air curtain incinerator, a brief description of the size and design of the unit (for example, an air curtain incinerator or a modular starved-air incinerator), the reasons the CISWI or air curtain incinerator must be operated for more than 8 weeks, and the amount of time for which you request permission to operate including the date you expect to cease operation of the unit.

(d) If you submitted the notification containing the information in paragraph (c)(2) of this section, by the date specified in paragraph (c)(1) of this section, you may continue to operate the CISWI or air curtain incinerator for another 8 weeks, which is a total of 16 weeks from the date the unit started operation within the boundaries of the current emergency or disaster declaration area, so long as control devices continue to run as able. You do not have to meet the emission limitations or other requirements of this subpart during this period.

(1) At the end of 16 weeks from the date the CISWI or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, you must cease operation of the unit or comply with all requirements of this subpart, unless the Administrator has approved in writing your request to continue operation.

(2) If the Administrator has approved in writing your request to continue operation, then you may continue to operate the CISWI or air curtain incinerator within the boundaries of the current emergency or disaster declaration area until the date specified in the approval, and you do not need to comply with any other requirements of this subpart during the approved time period.

PART 62—APPROVAL AND PROMULGATION OF STATE PLANS FOR DESIGNATED FACILITIES AND POLLUTANTS

■ 4. The authority citation for part 62 continues to read as follows:

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

Subpart IIIa—Federal Plan Requirements for Commercial and Industrial Solid Waste Incineration Units That Commenced Construction on or Before June 4, 2010, and Have Not Been Modified or Reconstructed Since August 7, 2013

■ 5. Under the undesignated center heading “Applicability” add § 62.14531a to read as follows:

§ 62.14531a What are the requirements for temporary-use incinerators and air curtain incinerators used in disaster recovery?

(a) If your CISWI or air curtain incinerator is used on a temporary basis to combust debris from a disaster or emergency such as a tornado, hurricane, flood, ice storm, high winds, or act of bioterrorism, it is excluded from the requirements of this subpart during the temporary-use period permitted under paragraphs (b) through (d) of this section as long as your CISWI or air curtain incinerator is used in accordance with paragraph (a) of this section. To qualify for this exclusion, the CISWI or air curtain incinerator may only be used to combust debris in an area declared a State of Emergency by a local or state government, or the President, under the authority of the Stafford Act, has declared that an emergency or a major disaster exists in the area. If your CISWI or air curtain incinerator is equipped with a control device, you must continue to run that control device in order to qualify for this exclusion, unless the control device

is infeasible to operate as a result of the disaster. Additionally, you must follow the requirements specified in paragraphs (b) through (d) of this section.

(b) If the CISWI or air curtain incinerator is used in accordance with paragraph (a) of this section during a period that begins on the date the unit started operation and lasts 8 weeks or less within the boundaries of the same emergency or disaster declaration area, then it is excluded from the requirements of this subpart. You do not need to notify the Administrator of its use or meet the emission limitations or other requirements of this subpart.

(c) If the CISWI or air curtain incinerator will be used during a period that begins on the date the unit started operation and lasts more than 8 weeks within the boundaries of the same emergency or disaster declaration area, you must notify the Administrator that the temporary-use CISWI or air curtain incinerator will be used for more than 8 weeks and request permission to continue to operate the unit as specified in paragraphs (c)(1) and (2) of this section.

(1) The notification must be submitted in writing by the date 8 weeks after you start operation of the temporary-use CISWI or air curtain incinerator within the boundaries of the current emergency or disaster declaration area.

(2) The notification must contain the date the CISWI or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, identification of the disaster or emergency for which the CISWI or air curtain incinerator is being used, a description of the types of materials being burned in the CISWI or air curtain incinerator, a brief description of the size and design of the unit (for example, an air curtain incinerator or a modular starved-air incinerator), the reasons the CISWI or air curtain incinerator must be operated for more than 8 weeks, and the amount of time for which you request permission to operate including the date you expect to cease operation of the unit.

(d) If you submitted the notification containing the information in paragraph (c)(2) of this section, by the date specified in paragraph (c)(1) of this section, you may continue to operate the CISWI or air curtain incinerator for another 8 weeks, which is a total of 16 weeks from the date the unit started operation within the boundaries of the current emergency or disaster declaration area, so long as control devices continue to run as able. You do not have to meet the emission

limitations or other requirements of this subpart during this period.

(1) At the end of 16 weeks from the date the CISWI or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, you must cease operation of the unit or comply with all requirements of this subpart, unless the Administrator has approved in writing your request to continue operation.

(2) If the Administrator has approved in writing your request to continue operation, then you may continue to operate the CISWI or air curtain incinerator within the boundaries of the current emergency or disaster declaration area until the date specified in the approval, and you do not need to comply with any other requirements of this subpart during the approved time period.

[FR Doc. 2025–16360 Filed 8–25–25; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

42 CFR Part 52c

[Docket No. NIH–2025–0001]

RIN 0925–AA72

Terminating National Institutes of Health Minority Biomedical Research Support Program and Rescinding the Program’s Related Regulation

AGENCY: National Institutes of Health, Department of Health and Human Services.

ACTION: Final rule.

SUMMARY: The Department of Health and Human Services (HHS), in consultation with the National Institutes of Health (NIH), is repealing the regulation relating to the Minority Biomedical Research Support (MBRS) program in compliance with Executive Order (E.O.) 14173 (*Ending Illegal Discrimination and Restoring Merit-Based Opportunity*) and E.O. 14151 (*Ending Radical and Wasteful Government DEI Programs and Preferencing*), and to abide by Supreme Court precedent. HHS remains committed to ensuring equal treatment under the law throughout its grant programs.

DATES: This final rule is effective September 25, 2025.

FOR FURTHER INFORMATION CONTACT: Matthew Zorn, Deputy General Counsel, U.S. Department of Health and Human Services, Office of the General Counsel, 200 Independence Avenue SW, Washington, DC 20201. Telephone:

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA-HQ-OAR-2003-0156; FRL-7547-02-OAR]

RIN 2060-AU60

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

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action finalizes the periodic review by the U.S. Environmental Protection Agency (EPA) of the emissions standards and other requirements for Other Solid Waste Incineration (OSWI) units in the OSWI New Source Performance Standards (NSPS) and Emission Guidelines (EG). The EPA is finalizing applicability-related and definitional changes; changes to OSWI subcategories and the standards for the new subcategories; changes to the startup, shutdown, and malfunction (SSM) provisions; and changes to testing, monitoring, recordkeeping, and reporting requirements. We are also making other miscellaneous technical and editorial changes to the regulatory text.

DATES: This final rule is effective August 29, 2025. The incorporation by reference (IBR) of certain publications listed in the regulation is approved by the Director of the Federal Register as of August 29, 2025.

ADDRESSES: The Environmental Protection Agency (EPA) has established a docket for this rulemaking under Docket ID No. EPA-HQ-OAR-2003-0156. All documents in the docket are listed on the <https://www.regulations.gov/> website. Although listed, some information is not publicly available, *e.g.*, Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically through <https://www.regulations.gov/>.

FOR FURTHER INFORMATION CONTACT: For questions about this final action, contact Felica Davis, Ph.D., Sector Policies and Programs Division (E143-05), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North

Carolina, 27711; telephone number: (919) 541-4857; and email address: davis.felica@epa.gov.

SUPPLEMENTARY INFORMATION:

Preamble acronyms and abbreviations. Throughout this preamble the use of “we,” “us,” or “our” is intended to refer to the EPA. We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

ACI air curtain incinerator
 ANSI American National Standards Institute
 AOGA Alaska Oil and Gas Association
 ASME American Society of Mechanical Engineers
 AWC alternative waste characterization
 Cd cadmium
 CAA Clean Air Act
 CBI Confidential Business Information
 CDX Central Data Exchange
 CEDRI Compliance and Emissions Data Reporting Interface
 CEMS continuous emissions monitoring systems
 CFR Code of Federal Regulations
 CISWI commercial and industrial solid waste incineration
 CO carbon monoxide
 CO₂ carbon dioxide
 CRA Congressional Review Act
 D.C.Circuit United States Court of Appeals for the District of Columbia Circuit
 DCOT digital camera opacity technique
 EG emission guidelines
 EPA Environmental Protection Agency
 ERT Electronic Reporting Tool
 FR Federal Register
 HCl hydrochloric acid
 Hg mercury
 HMIWI hospital, medical, and infectious waste incineration
 ICR Information Collection Request
 IWI institutional waste incineration
 MACT maximum achievable control technology
 MSW municipal solid waste
 MWC municipal waste combustor
 NESHAP national emission standards for hazardous air pollutants
 ng/dscm nanograms per dry standard cubic meter
 NO nitric oxide
 NO₂ nitrogen dioxide
 NO_x oxides of nitrogen
 NSPS New Source Performance Standards
 NTTAA National Technology Transfer and Advancement Act
 O₂ oxygen
 OSWI other solid waste incineration
 Pb lead
 PDF portable document format
 PM particulate matter
 ppm parts per million
 ppmvd parts per million dry (volume basis)
 PRA Paperwork Reduction Act
 RCRA Resource Conservation and Recovery Act
 RFA Regulatory Flexibility Act
 SMCD substitute means of compliance demonstration

SO₂ sulfur dioxide
 SRI small remote incinerator
 SSI sewage sludge incinerator
 SSM startup, shutdown, and malfunction
 TEQ toxic equivalency factor
 TMB total mass basis
 TPD tons per day
 tpy tons per year
 µg/dscm micrograms per dry standard cubic meter
 UMRA Unfunded Mandates Reform Act
 VCS voluntary consensus standards
 VSMWC very small municipal waste combustion
 XML extensible markup language

Organization of this document. The information in this preamble is organized as follows:

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 - B. How do I obtain a copy of this document and other related information?
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 - A. What is the statutory authority and regulatory history for this action?
 - B. What changes did we propose for the OSWI source category in our August 31, 2020, proposal and subsequent notices?
 - C. What outreach and engagement did we conduct?
- III. Summary of Final Action
 - A. What are the final rule amendments based on the CAA section 129(a)(5) review?
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 - D. What are the final rule amendments addressing other definitions for the OSWI category?
 - E. What are the final rule amendments addressing emissions during periods of SSM?
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 - G. What are the effective and compliance dates of the standards?
- IV. Public Comments and Responses
 - A. What key comments did we receive on the applicability of OSWI requirements, and what are our responses?
 - B. What key comments did we receive on the OSWI subcategories and related MACT floor redeterminations?
 - C. What key comments did we receive on other amendments, and what are our responses?
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- V. Summary of Cost, Environmental, and Economic Impacts
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- VI. Statutory and Executive Order Reviews
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 G. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
 H. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks
 I. Executive Order 13211: Actions Concerning Regulations That

Significantly Affect Energy Supply, Distribution, or Use
 J. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR Part 51
 K. Congressional Review Act (CRA)

I. General Information

A. Does this action apply to me?

Categories and entities potentially affected by this final action are those that operate OSWI units. OSWI units are not commercial and industrial solid waste incineration units (CISWI), hazardous waste combustors (HWC),

hospital/medical/infectious waste incinerators (HMIWI), sewage sludge incinerators (SSI), or other incinerators regulated elsewhere under section 129 of the CAA. Although there is no specific North American Industry Classification System (NAICS) code for OSWI units, the units subject to the New Source Performance Standards (NSPS) and Emission Guidelines (EG) for OSWI, hereinafter referred to as “the OSWI standards,” may be operated by the categories of sources listed in table 1 of this preamble:

TABLE 1—INDUSTRIAL SOURCE CATEGORIES AFFECTED BY THIS ACTION

Source category	NAICS code ¹	Examples of potentially regulated entities
Any state, local, or tribal government using a very small municipal waste combustion (VSMWC) unit.	562213, 92411	Solid waste combustion units burning municipal solid waste (MSW).
Any correctional institutions using an institutional waste incineration (IWI) unit.	922, 7213	Correctional institutions.
Any nursing or residential care facilities using an OSWI unit.	623	Any nursing care, residential intellectual and developmental disability, residential mental health and substance abuse, or assisted living facilities.
Any Federal government agency using an OSWI unit	928, 7121	Department of Defense (labs, military bases, munition facilities) and National Parks.
Any educational institution using an OSWI unit	6111, 6112, 6113	Primary and secondary schools, universities, colleges, and community colleges.
Any church or convent using an OSWI unit	8131	Churches and convents.
Any civic or religious organization using an OSWI unit	8134	Civic associations and fraternal associations.
Any industrial or commercial facility using a VSMWC unit	114, 211, 212, 221, 486	Oil and gas exploration operations; mining; pipeline operators; utility providers; fishing operations.

¹ North American Industry Classification System.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your entity is regulated by this action, you should carefully examine the applicability criteria found in 40 Code of Federal Regulations (CFR) 60.2885, 60.2981, and 60.2991. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section of this preamble, your delegated authority, or your EPA Regional representative listed in 40 CFR 60.4 (General Provisions).

B. How do I obtain a copy of this document and other related information?

The docket number for this final action regarding the OSWI EG and NSPS is Docket ID No. EPA–HQ–OAR–2003–0156. In addition to being available in the docket, an electronic copy of this final action will also be available on the internet. Following signature by the EPA Administrator, the EPA will post a copy of this final action at: [https://www.epa.gov/stationary-sources-air-pollution/other-solid-waste-](https://www.epa.gov/stationary-sources-air-pollution/other-solid-waste-incinerators-oswi-new-source-performance)

incinerators-oswi-new-source-performance. Following publication in the **Federal Register** (FR), the EPA will post the FR version and key technical documents at this same website.

C. Judicial Review and Administrative Reconsideration

Under Clean Air Act (CAA) section 307(b)(1), judicial review of this final action is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit (the D.C. Circuit) by August 29, 2025. Under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce the requirements.

Section 307(d)(7)(B) of the CAA further provides that only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. This section also provides a mechanism for the EPA to reconsider the rule if the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within the period

for public comment or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule. Any person seeking to make such a demonstration should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, WJC South Building, 1200 Pennsylvania Ave. NW, Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave. NW, Washington, DC 20460.

II. Background

A. What is the statutory authority and regulatory history for this action?

Section 129 of the CAA, entitled “Solid Waste Combustion,” requires the EPA to develop and adopt NSPS and EG for solid waste incineration units, in accordance with CAA sections 129 and 111. Section 129(a) of the CAA requires the EPA to establish NSPS for new

sources, and CAA section 129(b) requires the EPA to establish procedures for states to submit plans for implementing EG for existing sources. The EPA initially proposed NSPS and EG for OSWI units on December 9, 2004 (69 FR 71472), and finalized them on December 16, 2005 (70 FR 74870), at 40 CFR part 60, subparts EEEE and FFFF. The 2005 OSWI standards applied to an incineration unit with a capacity of less than 35 TPD burning MSW (as defined in 40 CFR 60.2977 of subpart EEEE, and 40 CFR 60.3078 of subpart FFFF) or an incineration unit located at an institutional facility burning institutional waste (as defined in 40 CFR 60.2977 of subpart EEEE and 40 CFR 60.3078 of subpart FFFF) generated at that facility. The 2005 rule has yet to be fully implemented for existing sources because most states have not developed and submitted state plans for approval and EPA has not promulgated an implementing Federal plan. Following that final action, the Administrator received a petition for reconsideration of the OSWI standards, and on June 28, 2006, the EPA announced reconsideration of the final OSWI rules (71 FR 36726). After consideration of comments and information received through the reconsideration process, we concluded that no additional changes were necessary to the final OSWI rules (72 FR 2620, January 22, 2007).

In addition to the administrative reconsideration request, some entities petitioned for judicial review of the 2005 OSWI standards. The judicial review proceedings were initially stayed and, ultimately, the EPA requested a voluntary remand of the OSWI standards. By an order dated April 21, 2016, the D.C. Circuit granted the EPA's request for a remand. Order, *Sierra Club v. EPA*, No. 06–1066 (D.C. Cir. April 21, 2016). The remand was requested to allow the EPA to consider potential revisions, if any, to the OSWI standards that might be appropriate in light of certain legal developments, including 2007 and 2008 decisions from the D.C. Circuit.¹

The OSWI NSPS establishes maximum achievable control technology (MACT) emission limits for new or modified OSWI units. For new sources, the CAA requires that MACT limits be no less stringent than the emissions control achieved in practice by the best-controlled similar unit. The OSWI EG establishes MACT emission

limits for existing OSWI units. For existing sources, the CAA requires that MACT limits be no less stringent than the average emissions limitation achieved by the best-performing 12 percent of units in a source category. The 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.

Under the 2005 OSWI standards, the term “OSWI unit” means either a very small municipal waste combustion (VSMWC) unit or an institutional waste incineration (IWI) unit. A VSMWC unit is any municipal waste combustion unit that has the capacity to combust less than 35 tons per day (TPD) of municipal solid waste (MSW) or refuse-derived fuel. An IWI unit is any combustion unit that combusts institutional waste and is a distinct operating unit of the institutional facility, such as a university or prison, that generated the waste.

As required by section 129 of the CAA, the OSWI NSPS and EG rules set emission standards for nine pollutants: cadmium (Cd), carbon monoxide (CO), dioxins/furans (D/F), hydrochloric acid (HCl), lead (Pb), mercury (Hg), oxides of nitrogen (NO_x), particulate matter (PM), and sulfur dioxide (SO₂). They also established opacity standards.

CAA section 129(a)(5) requires the EPA to review and, if appropriate, revise the requirements for solid waste incineration units no later than five years following the initial promulgation of any performance standards and at periodic five year intervals after that. However, in 2018, the D.C. Circuit found that the EPA had failed to undertake the periodic review of the OSWI standards and placed the EPA on a schedule to issue a proposed rulemaking and a final rulemaking.² The EPA published a proposed rule on August 31, 2020, for the OSWI NSPS and EG rules that addressed the requisite CAA section 129(a)(5) periodic review (85 FR 54178, hereafter referred to as the “2020 Proposed Rule”). The EPA subsequently published three actions to address issues raised in the 2020 Proposed Rule: (1) withdrawal of

certain provisions included in the 2020 Proposed Rule which proposed modifying the definition of “municipal waste combustion unit,” by removing pyrolysis/combustion units from the definition (88 FR 36524, June 5, 2023, hereafter referred to as the “2023 Withdrawal”); (2) a final rule promulgating certain provisions for OSWI air curtain incinerators (ACI) to remove the title V permitting requirements for ACIs that only burn wood waste, clean lumber, yard waste, or a mixture of those, and are not located at title V major sources or subject to title V for other reasons (89 FR 27392, April 17, 2024, hereafter referred to as the “2024 ACI Rule”); and (3) a supplemental notice of proposed rulemaking (SNPRM) to add a definition for “rudimentary combustion device” (89 FR 60342, July 25, 2024, hereafter referred to as the “2024 SNPRM”).

B. What changes did we propose for the OSWI source category in our August 31, 2020, proposal and subsequent notices?

The EPA published the 2020 Proposed Rule in the **Federal Register** to address the requisite CAA section 129(a)(5) periodic review (85 FR 54178). We proposed that no new developments in practices, processes, or control technologies existed for any OSWI units and that it was not necessary to revise the OSWI standards for new and existing units under CAA section 129(a)(5). In addition, we proposed some changes to the OSWI standards that were occasioned by the 2016 voluntary remand of the OSWI standards (and the legal developments related to that request for a remand). In accordance with the EPA's general authority under CAA section 129(a), we proposed: (1) revised subcategories and MACT standards that better reflect actual emissions test data from OSWI units and the population of OSWI; (2) changes to applicability provisions for the EG and NSPS including definitional changes; (3) revisions to regulatory provisions related to emissions during periods of startup, shutdown, and malfunction (SSM); (4) testing and monitoring flexibilities so that VSMWC or IWI units with capacities less than or equal to 10 TPD can demonstrate compliance with the rule; (5) provisions for electronic reporting of certain notices and reports; (6) revisions to recordkeeping and reporting provisions consistent with the revised testing and monitoring; (7) changes to title V permitting requirements for air curtain incinerators that burn less than 35 TPD and burn only wood waste, clean lumber and yard waste; and (8) other technical edits, clarifications, and

² Order, *Sierra Club v. Wheeler*, no. 16–2461 (D.D.C. filed Sept. 14, 2018) (ordering the EPA publish a notice of proposed rulemaking by August 21, 2020, and promulgate a final rulemaking by May 31, 2021); Order *Sierra Club v. Wheeler*, no. 16–2461 (D.D.C. filed April 22, 2021) (extending the EPA's deadline for a final rulemaking to October 31, 2021); Order, *Sierra Club v. Wheeler*, no. 16–2461 (D.D.C. filed Oct. 14, 2021) (extending the EPA's deadline for a final rulemaking to March 1, 2024); Order, *Sierra Club v. Wheeler*, no. 16–2461 (D.D.C. filed Nov. 7, 2023) (extending the EPA's deadline to promulgate a final rulemaking to June 30, 2025).

¹ *Sierra Club v. EPA*, 479 F.3d 875 (D.C. Cir. 2007)); *NRDC v. EPA*, 489 F.3d 1250 (D.C. Cir. 2007); *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008).

revisions intended to improve the understanding of the rules and improve consistency with other CAA section 129 rules. For a more detailed discussion of these revisions, see section II.B of the proposal preamble (85 FR 54178; August 31, 2020).

In the 2020 Proposed Rule, the EPA proposed to change the applicability of the OSWI standards to remove the reference to pyrolysis/combustion units from the definition of “municipal waste combustion unit.” At that time, we considered that the reference to a pyrolysis/combustion unit as a municipal waste combustor (MWC) should not apply to OSWI units because such units are used to combust uncontained gases and do not involve the combustion of solid waste as defined in the OSWI rule.

The EPA published an advanced notice of proposed rulemaking on September 8, 2021 (86 FR 50296), to gather more details on pyrolysis/combustion units, including how they are used, the inputs and products of the processes, and emissions from these processes. In response to significant adverse comment, the EPA subsequently withdrew the proposed revisions to the definition of “municipal waste combustion unit” (88 FR 36524, June 5, 2023). Accordingly, the EPA will not be taking additional action related to pyrolysis/combustion units in this action.

The EPA published the 2024 ACI Rule promulgating certain provisions related to the title V permitting requirements for OSWI air curtain incinerators (ACI) (89 FR 27392, April 17, 2024). Based on available data, ACIs that combust less than 35 TPD of wood waste, clean lumber, and yard waste are commonly located at facilities that would not otherwise require title V operating permits. Further, these types of ACIs are typically used temporarily at the locations for things like land clearing or storm cleanup. The EPA received overwhelming support from states and industry stakeholders to remove the title V permitting requirement for ACIs that only burn wood waste, clean lumber, yard waste, or a mixture of these wastes, and received no adverse comments on these revisions in the 2020 Proposed Rule. These changes were finalized, and a subsequent technical correction was published November 14, 2024 (89 FR 89928), to address inadvertent errors in the regulatory text in order to make the rule consistent with the description in the April 17, 2024, final rule preamble.

Following the EPA’s analysis of comments received after the 2020 Proposed Rule, and discussions with the state of Alaska and Tribes, the EPA

published the 2024 SNPRM on July 25, 2024, which proposed to add a definition for “rudimentary combustion device” to address the unique issues associated with these units. The EPA proposed to define a rudimentary combustion device as a combustion device with a capacity less than or equal to 10 TPD that is designed and constructed without one or more of the following elements: (1) a stack, chimney, or pipe designed for the purpose of managing air flow and discharging flue gases from combustion; (2) mechanical draft to provide air flow; (3) burners designed to manage the combustion process; (4) an ancillary power supply to operate; or (5) supplemental fuel burners or nozzles. Because rudimentary combustion devices lack one or more of these elements, the EPA proposed the emissions information, limits, and controls developed for the 2020 Proposed Rule would not be appropriate for them. Most rudimentary combustion devices are not equipped with stacks from which to sample emissions during a performance test, and a stack or extension would be needed in order to perform the testing required by the OSWI standards. Many of these devices are located within Native American villages and other remote or difficult to access areas of the country with limited road access to haul waste to a larger community for burning or landfilling. As a result, local waste disposal is the only option available, and these communities face significant challenges and constraints in addressing this issue. Given the numerous challenges regarding these units, in the 2024 SNPRM the EPA proposed postponing development of standards for units that meet the definition of rudimentary combustion devices at this time.

C. What outreach and engagement did we conduct?

In developing this rule, the EPA conducted outreach activities with states, Tribes, and communities located near OSWI facilities. In addition to public comments received, we obtained feedback from interested parties and evaluated and considered the information received as we developed this action. In June 2020, the EPA conducted four pre-proposal informational calls for federally recognized Tribes, including an overview presentation during the June 25, 2020, National Tribal Air Association call. On August 31, 2020, the EPA sent an email notification to stakeholders announcing that the action had been published with a 45-day comment period and an opportunity to

request a public hearing. In September 2020, the EPA held six consultation meetings with Tribes including meetings with Northway Village, Qagan Tayagungin, Loudon Tribe, and the Mescalero Apache Tribe to give an overview of the OSWI proposal and provide instructions on how and when comments on the rule should be submitted to the docket (see Docket ID No. EPA–HQ–OAR–2003–0156). The EPA also conducted four informational calls on the OSWI rule in September 2020 including an overview at the Small Business Environmental Assistance Program (SBEAP) Annual Training, Alaska Air Workgroup call, Tribal Environmental Leaders Summit call, and an update at the National Tribal Air Association (NTAA) call. Although a public hearing was not requested, the EPA continued to seek out additional opportunities for interested parties to be informed about potential requirements of this action. This outreach has included a presentation to the Small Business Environmental Assistance Program on June 5, 2023; regular meetings with the state of Alaska to discuss the operation of incineration units; and a presentation on this action during the National Association of Clean Air Agencies (NACAA) Permitting and New Source Review Committee meeting. In March 2025, the EPA held several informational calls with AOGA and industry to discuss their comments submitted on the 2020 Proposed Rule.

III. Summary of Final Action

This action provides the EPA’s final determination pursuant to the requisite CAA section 129(a)(5) periodic review for the OSWI standards and requirements in the NSPS and EG rules (see section III.A of this preamble). This action also finalizes applicability-related and definitional changes, changes to OSWI subcategories, and related MACT floor redeterminations, as well as several changes from the 2020 Proposed Rule and changes from the 2024 SNPRM (see sections III.B through D of this preamble). In addition, we are finalizing changes to the SSM provisions (see section III.E of this preamble). Lastly, we are finalizing revisions to the testing, monitoring, recordkeeping, and reporting requirements; and miscellaneous other technical and editorial changes to the regulatory text (see sections III.F.1 through III.F.4 of this preamble). The effective and compliance dates for these actions are discussed in section III.G of this preamble.

A. What are the final rule amendments based on the CAA section 129(a)(5) review?

After considering the public comments received, we are finalizing our results of the CAA section 129(a)(5) periodic review for the OSWI standards as proposed (85 FR 54178). We have determined there are no developments in practices, processes, or control technologies that warrant revisions to the OSWI standards and requirements. Consistent with the 2020 Proposed Rule, we are not revising the OSWI standards and requirements for new or existing sources based on our review under CAA section 129(a)(5).

For a detailed discussion of our review pursuant to CAA section 129(a)(5), see section II.A of the preamble to the 2020 Proposed Rule. Comments on the CAA section 129(a)(5) review and our responses can be found in section IV of this preamble and in the document, Summary of Public Comments and Responses for the Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units Review, which is available in the docket (see Docket ID No. EPA-HQ-OAR-2003-0156) for this rulemaking.

B. What are the final rule changes involving the applicability of OSWI requirements?

Although not predicated on the CAA section 129(a)(5) review, in this rule, we are finalizing certain changes to the OSWI standards. The EPA proposed several changes involving the applicability requirements for OSWI in the 2020 Proposed Rule and the 2024 SNPRM. The EPA is finalizing proposed changes to the applicability of the OSWI standards following our consideration of comments received on the 2020 Proposed Rule, the 2024 SNPRM, and data provided by the Alaska Oil and Gas Association (AOGA) for small remote incinerators (SRIs) located in Alaska. As discussed below in this section, we are finalizing the proposed removal of the definition of the term “collected from” as used in the definition of “municipal solid waste”; the addition of a new definition for certain small units that were included in the 2024 SNPRM as “rudimentary combustion units”; and associated edits to the applicability requirements of 40 CFR 60.2885 and 40 CFR 60.2991.

In the 2020 Proposed Rule, the EPA proposed changes to the applicability of the OSWI standards. At that time, the EPA intended to resolve inconsistent definitions between OSWI and other

CAA section 129 rulemakings and to update aspects of the OSWI rule based on new data used to develop revised emission limits for OSWI units with capacity less than or equal to 10 TPD.

We are finalizing the proposed removal of the definition of the term “collected from” as used in the definition of “municipal solid waste” to place the focus on the source and type or nature of the waste. The term collected from (as defined in the OSWI rule) means the transfer of material from the site at which the material is generated to a separate site where the material is burned. We noted that the 2005 OSWI rule finalized a definition of “municipal solid waste” (refuse and refuse-derived fuel “collected from” the general public and from residential, commercial, institutional, and industrial sources) that was similar to the definition of “municipal waste” provided in CAA section 129(g)(5), but was interpreted for the purposes of VSMWC applicability under OSWI, to mean that the municipal waste must be “collected from” certain types of sites or from multiple sites. Specifically, the 2005 OSWI rule stated that “small incinerators” that are located at commercial businesses (such as stores, restaurants and apartments) or industrial sites are not VSMWC units because they do not burn waste which has been “collected from” a site that generated the waste and transferred to a separate site where the waste is burned (70 FR 74882). The 2020 Proposed Rule reevaluated this interpretation, noting that other existing CAA section 129 incinerator rules (such as the municipal waste combustor (MWC) rules) do not necessarily place the same emphasis on where the waste is collected.

By removing the definition of “collected from”, such small incinerators located at commercial businesses or industrial sites would no longer be subject to this limitation and would qualify as VSMWC (provided these units burn more than 30-percent MSW) under OSWI. The CISWI NSPS and EG currently regulate small remote incinerators (SRIs) at commercial and industrial facilities that combust at least 30-percent MSW, but they would now qualify as VSMWC under OSWI in the final rule. These incinerators are primarily owned by oil and gas companies and burn municipal-type solid waste that is generated by the oil and gas workers and is not associated with oil and gas activities. The EPA’s decision to regulate these SRI units located at commercial businesses under the OSWI standards is discussed further in sections III.C and IV.A of this preamble.

We are finalizing as proposed new subcategories and revised emission limits for new and existing OSWI units with capacities less than or equal to 10 TPD. In the 2020 Proposed Rule, the EPA proposed new emission standards for OSWI units with capacity less than or equal to 10 TPD, based on analysis of data collected during the development of the CISWI rules and data subsequently provided by AOGA for SRI units located in Alaska (see section III.C of this preamble for further discussion). In response to the 2020 Proposed Rule’s new subcategories and emission standards for new and existing OSWI units with capacities less than or equal to 10 TPD, the EPA received numerous comments noting that it would be nearly impossible for most rural Alaskan communities to comply with the proposed requirements. Units in rural Alaskan communities are often very basic in design and function. Commenters stated that the proposed requirements are inapplicable or impractical for these types of small units (e.g., burn boxes), which do not have stacks or other incinerator design elements, such as waste feed or flue gas systems, heat recovery, and bottom ash systems. Commenters stated that due to these limitations and other challenges, including the associated costs of compliance, rural communities operating these units would be unable to meet the proposed requirements and may be forced to return to less environmentally friendly waste disposal methods, such as open burning, barrel burning, or loose filling waste which could also attract wildlife that may present immediate health and safety risks. These comments are summarized in detail in the 2024 SNPRM (see section III, 89 FR 60345–60347).

Subsequent discussions with state and tribal agencies in Alaska demonstrated that most of these units have a capacity of less than or equal to 10 TPD, are rudimentary in design and function, and are generally located in remote areas. These units are not equipped with stacks with which to sample emissions during performance testing, likely cannot be physically modified to equip the unit with a stack, and may be difficult to access for testing due to their physical location.

Based on this new information, the EPA proposed a new definition for “rudimentary combustion devices” and associated edits to 40 CFR 60.2885 and 40 CFR 60.2991. Units that fall under the definition of rudimentary combustion devices are not considered VSMWC or IWI, and so are not required to comply with the emission standards for VSMWC or IWI (see section III.D of

this preamble for further discussion). As noted in the 2024 SNPRM, the EPA does not consider the emissions information, limits, and controls developed for the proposed OSWI rule to be appropriate for these devices, which lack one or more of these elements, and is therefore not setting standards for rudimentary combustion devices in this rulemaking. Further, these rules do not usurp existing local or state regulations that apply to these units, which will continue to apply as they currently do.

Comments on the proposed changes to applicability, including comments received on the 2024 SNPRM, and our responses can be found in section IV.A of this preamble and in the document, *Summary of Public Comments and Responses for the Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units Review*, which is available in the docket (see Docket ID No. EPA-HQ-OAR-2003-0156) for this rulemaking.

C. What are the final rule amendments addressing OSWI subcategories and related MACT floor redeterminations?

The EPA is finalizing, as proposed, the revisions to the OSWI subcategories for both new and existing units and associated MACT floor recalculations included in the 2020 Proposed Rule. For the 2005 OSWI standards, the EPA lacked emissions data from OSWI units, and the emission limits were based on information for similar sources in the HMIWI unit source category, as discussed in the preamble to the proposed rule (85 FR 54183). During the

development of the 2020 Proposed Rule, the EPA collected additional information on two new OSWI units (constructed after the current OSWI standards were issued) with capacities greater than 10 TPD and emissions information for certain existing small remote incineration units located in Alaska that historically have been regarded as SRIs under CISWI, but which we proposed to treat as OSWI VSMWC units.

The EPA proposed to reconsider the dividing line between the OSWI and CISWI standards and to treat these existing units as VSMWC based on data submitted by AOGA showing that most of these units burn more than 30 percent municipal type solid waste generated by staff/personnel at commercial or industrial facilities (discussed in section III.B of this preamble). Because the data indicated that SRI units combust more than 30 percent MSW, even though they are located at commercial or industrial facilities and currently subject to CISWI, we proposed that they would be subject to the OSWI rule. As discussed in the 2020 Proposed Rule, this approach is more consistent with the EPA's other CAA section 129 MWC rules and the CAA definition of "municipal waste" in CAA section 129(g)(5), which defines the term "municipal waste" to mean refuse "collected from the general public and from residential, commercial, institutional, and industrial sources consisting of paper, wood, yard wastes, food wastes, plastics, leather, rubber and other combustible materials and non-combustible materials such as metal, glass and rock." We did not read

this definition as necessitating that, to constitute MSW, that the waste must be transferred from one site and burned at another site. Additionally, the information gathered for the two new OSWI units (VSMWC with capacities greater than 10 TPD located in Arizona and Texas) indicated that these units are continuously fed rotary combustors that use add-on pollution controls to comply with the OSWI standards.

For incineration units, differences in size typically reflect differences in operation and equipment complexity. Units with capacities less than or equal to 10 TPD typically feed waste to the unit in batches and some units may not even be equipped with stacks. Units larger than 10 TPD typically feed waste to the unit continuously or semi-continuously and also typically have stacks or flues that can be routed to air pollution control devices. Based on the differences in size, design, and operation of the SRI units and the two new OSWI units, the EPA proposed to subcategorize IWI and VSMWC units under OSWI based on size. These subcategories included VSMWC units with a capacity to combust less than or equal to 10 TPD of MSW or refuse-derived fuel; IWI units with a capacity to combust less than or equal to 10 TPD of institutional waste; VSMWC units with a capacity to combust greater than 10 TPD but less than 35 TPD of MSW or refuse-derived fuel; and IWI units with a capacity to combust greater than 10 TPD of institutional waste. The proposed and final subcategories for VSMWC and IWI units are summarized in table 2 of this preamble.

TABLE 2—OSWI CATEGORIES AND NEW SUBCATEGORIES

2005 Final rule		2020 Proposed rule		2025 Final rule	
Subcategory	Capacity	Subcategory	Capacity	Subcategory	Capacity
VSMWC	<35 TPD	Small VSMWC	≤10 TPD	VSMWC with capacity ≤10 TPD.	≤10 TPD.
IWI	No capacity threshold	Large VSMWC	>10 but <35 TPD	VSMWC with capacity >10 TPD.	>10 but <35 TPD.
		Small IWI	≤10 TPD	IWI with capacity ≤10 TPD.	≤10 TPD.
		Large IWI	>10 TPD	IWI with capacity >10 TPD.	>10 TPD.

The EPA subsequently proposed revised MACT floor emission limits for existing and new VSMWC and IWI units with capacities less than or equal to 10 TPD based on the updated inventory, emissions, and waste data provided by AOGA. We did not propose any revisions to the MACT floor emission limits for existing and new "large" OSWI units (greater than 10 TPD).

Section II.B. of the preamble to the 2020 Proposed Rule provides additional information on the EPA's rationale for the proposed revisions to subcategorize OSWI units and the proposed emission limits.

Following review of the comments received on the 2020 Proposed Rule, we are finalizing the proposed subcategories and related MACT floor

recalculations for new and existing VSMWC and IWI units with capacities less than or equal to 10 TPD based on the data gathered during the 2020 Proposed Rule, which includes data collected for SRI units previously regulated under CISWI, and which better reflects the actual emissions test data from similar units. The final subcategories for OSWI units remain

appropriate based on the differences in the size, design, and operation of the units with capacity less than or equal to 10 TPD and the two new OSWI units, that have capacities greater than 10 TPD. In addition, consistent with the proposal, we are not finalizing any changes to the 2005 OSWI emission limits for VSMWC and IWI units with capacities greater than 10 TPD (new and existing). Also, we conclude, as proposed, that revised beyond-the-floor limits are not appropriate for the OSWI subcategories (see section II.B.1 of the proposal preamble (85 FR 54178)).

We have developed revised emission limits for existing OSWI units with capacities less than or equal to 10 TPD using the average emission limitation of the best performing 12 percent of such sources and also considering variability in emissions, consistent with CAA section 129(a)(2). The revised standards better reflect actual emissions test data from OSWI units and are more representative of and better reflect the emissions achievable for new and existing units in each category required under CAA sections 129(a)(2) and (4).

To calculate the MACT floor emission limits for these existing OSWI sources, we considered the available test run data provided in response to a 2010 information collection request (ICR) and test data from 2014 submitted in June 2017 by AOGA in their attempt to address concerns that they had with the 2010 ICR data pertaining to the emissions test data representativeness and waste variability. In the MACT floor analysis, we used the run data from the 2010 and 2014 emission tests to calculate the 99th percentile upper limits (UL) statistical interval for the best 12 percent of such incineration units for each pollutant to address the range of operating conditions of the incinerator. The UL is a common statistical interval used to address

variability and was the same statistical interval used to calculate the CISWI SRI emission limits (76 FR 15723, March 21, 2011). We also applied a waste variability factor to account for variability in emissions expected to result from the varying waste profiles of OSWI units.

We are also finalizing revised MACT floors for new OSWI units with capacities less than or equal to 10 TPD. Section 129(a)(2) of 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. Therefore, the approach for new sources was similar to that used with the existing sources (*i.e.*, UL with a waste variability factor applied for the pollutants influenced by waste composition), except the top performing unit's data were used to calculate the MACT floor emission limit instead of the average of the best performing 12 percent of units and a 95 percentile UL was used instead of a 99 percentile UL.

We also examined whether it was appropriate to adopt more stringent "beyond-the-floor" regulatory options to determine MACT. Unlike the floor minimum stringency requirements, the EPA must consider various impacts of the more stringent regulatory options in determining whether MACT standards are to reflect "beyond-the-floor" requirements, including considering the costs, non-air quality health and environmental impacts, and energy requirements of such more stringent control. OSWI units with capacities less than or equal to 10 TPD often are of very basic, rudimentary design and function. Requiring additional controls on these units is infeasible or simply would be cost prohibitive. For OSWI units with capacities greater than 10 TPD, the 2005 final rule already incorporated beyond-the-floor requirements. We do not have

sufficient information for OSWI units with capacities greater than 10 TPD that would enable us to revise the beyond the floor limits. However, based on the information we have from the 2005 rule, requiring any further controls would likely only provide minimal emissions reductions with substantial cost investments. Considering these factors, we concluded that revised beyond-the-floor limits are unreasonable for the OSWI subcategories.

The final emission limits, including the new limits for VSMWC and IWI units with capacities less than or equal to 10 TPD and the unchanged limits for units with capacities greater than 10 TPD, are summarized in table 3 of this preamble. The limits for the VSMWC and IWI with capacities less than or equal to 10 TPD are less stringent than the corresponding limits for VSMWC and IWI with capacities greater than 10 TPD. However, the VSMWC and IWI with capacities less than or equal to 10 TPD operate intermittently (average 2,620 hours or 109 days per year) with a relatively low stack gas flow rate (average 686 dry standard cubic feet per minute at 7 percent oxygen), and so the actual emissions of pollutants are relatively low for these units.³ For example, the EPA estimates that a representative VSMWC with capacity greater than 10 TPD may emit between 0.006 and 0.01 tons of Cd per year while meeting its limit of 18 µg/dscm,⁴ while the highest-emitting VSMWC with capacity less than or equal to 10 TPD emitting at the level of the standard (2,000 µg/dscm) would only emit 0.007 tons of Cd per year.⁵

³ See Docket Item No. EPA-HQ-OAR-2003-0156-0143.

⁴ See Docket Item No. EPA-HQ-OAR-2003-0156-0011.

⁵ See Docket Item No. EPA-HQ-OAR-2003-0156-0143.

TABLE 3—FINAL EMISSION LIMITS FOR OSWI UNITS

Pollutant	Concentration units	Existing VSMWC and IWI units ¹		New VSMWC and IWI units ¹	
		≤10 TPD	>10 TPD ²	≤10 TPD	>10 TPD ²
Cd	µg/dscm	2,000	18	400	18
HCl	ppmvd	500	15	210	15
Pb	µg/dscm	32,000	226	26,000	226
Hg	µg/dscm	69	74	12	74
SO ₂	ppmvd	130	3.1	38	3.1
NO _x	ppmvd	210	103	180	103
PM	mg/dscm	280	30	210	30
DF (TMB) ²	ng/dscm	4,700	33	3,100	33
DF (TEQ) ³	ng/dscm	86	(⁴)	40	(⁴)
CO	ppmvd	220	40	69	40

¹ Limits are based on TPD capacity.

² Limit remains unchanged from 2005 OSWI Rule. For PM, the 2005 OSWI standard was converted from grains per dscf to mg/dscm.

³ TMB = Total mass basis.

⁴ TEQ = Toxic equivalency basis.

⁵ DF TEQ basis was not calculated for the 2005 rule.

Comments on the proposed revisions to the MACT floor recalculations and OSWI subcategories and our responses can be found in section IV.B of this preamble. Additional information on the development of the emission limits may be found in section II.B. of the preamble to the 2020 Proposed Rule and in the memorandum, *Emission Limit Calculations for Existing and New Sources for the Final Other Solid Waste Incinerator (OSWI) Rulemaking*, which is available in the docket (see Docket EPA-HQ-OAR-2003-0156) for this action.

D. What are the final rule amendments addressing other definitions for the OSWI category?

In addition to the proposed changes to applicability-related definitions described in section III.B of this preamble, the EPA included in its 2020 Proposed Rule definitions for “waste profile” and “small OSWI unit.” As discussed in section III.C of this preamble, the EPA is finalizing the proposed subcategories and related MACT floor recalculations for new and existing VSMWC and IWI units with capacities less than or equal to 10 TPD. Accordingly, the EPA is finalizing separate flexibilities to the testing, monitoring, recordkeeping, and reporting requirements for OSWI units with capacities less than or equal to 10 TPD that require waste characterization and waste profile data (see section III.F.1 of this preamble). For these reasons, we are finalizing the proposed revision to add a definition for “waste profile” as related to compliance with the VSMWC and IWI with capacity of less than or equal to 10 TPD standards. The EPA proposed to define waste profile to mean the amount of each waste category burned as a percentage of

total waste burned on a mass basis. We are not finalizing the proposed definition for “small OSWI unit,” but are retaining text for VSMWC and IWI units with capacities less than or equal to 10 TPD in keeping with the final subcategories and MACT floor redeterminations discussed in section III.C of this preamble.

Following consideration of the comments received and discussions with state and Tribal authority to gather additional data on the types of units referenced, the EPA proposed in the 2024 SNPRM to define a rudimentary combustion device separately from VSMWC or IWI because rudimentary combustion devices lack key features of commercially available incineration units and the emissions information, limits, and controls developed for the OSWI rule are not appropriate for them. The EPA proposed to define a rudimentary combustion device as a combustion device with a capacity less than or equal to 10 TPD that is designed and constructed without one or more of the following elements: (1) a stack, chimney, or pipe designed for the purpose of managing air flow and discharging flue gases from combustion; (2) mechanical draft to provide air flow; (3) burners designed to manage the combustion process; (4) an ancillary power supply to operate; or (5) supplemental fuel burners or nozzles. The EPA solicited additional comments and data to refine the definition of “rudimentary combustion device” and to better understand the number of devices and individuals using these devices in rural communities. Following review of the comments received on the 2024 SNPRM, we are finalizing revisions to the applicability requirements at 40 CFR 60.2885 and 40 CFR 60.2991 and adding a definition of

“rudimentary combustion device”, with minor revisions from the 2024 SNPRM proposal. For the reasons described in section IV.A of this preamble, we are clarifying the proposed requirements and finalizing the definition of “rudimentary combustion device” as a combustion device with a capacity less than or equal to 10 TPD that is designed and constructed without one or more of the following elements: (1) a stack, chimney, or pipe designed for the purpose of discharging flue gases from combustion; (2) mechanical draft to provide air flow; (3) burners designed to initiate, and/or assist the combustion process, including burners designed to burn supplementary fuel; or (4) an ancillary power supply to operate. Additional information on this proposed revision can be found in section III of the preamble to the 2024 SNPRM.⁶

E. What are the final rule amendments addressing emissions during periods of SSM?

Currently, the OSWI standards do not apply during SSM periods (see 40 CFR 60.2918, 60.3025). The EPA proposed to eliminate this limitation or qualification on the applicability of the OSWI standards. The EPA proposed this change in light of the 2016 remand and certain legal developments, including a decision by the D.C. Circuit that invalidated certain regulations related to SSM in the 40 CFR part 63 General Provisions (*Sierra Club v. EPA*, 551 F.3d 1019 (2008)). We are finalizing the proposed amendments to the OSWI standards from the 2020 Proposed Rule to remove and revise provisions related to SSM.

⁶ 89 FR 63045–47 (July 25, 2024).

For the reasons explained in the 2020 Proposed Rule (see section II.B.3 of the proposal preamble at 85 FR 54178), we determined that OSWI units can meet the applicable standards at all times, including during periods of startup and shutdown. In establishing the standards in this rule, the EPA has taken into account startup and shutdown periods and, for the reasons explained below, has not established alternate standards for those periods. As explained in the 2020 Proposed Rule, we have determined that during startup most OSWI units burn natural gas or clean distillate oil, and waste is not added until the unit has reached suitable combustion temperatures; and during shutdown periods, emissions are generally significantly lower than emissions during normal operations because the materials in the incinerator will be almost fully combusted before shutdown occurs.

Periods of startup, normal operations, and shutdown are all predictable and routine aspects of a source's operations. Malfunctions, in contrast, are neither predictable nor routine. Instead, they are, by definition, sudden, infrequent, and not reasonably preventable failures of emissions control, process, or monitoring equipment. (40 CFR 63.2) (definition of malfunction). The EPA interprets CAA section 112 as not requiring emissions that occur during periods of malfunction to be factored into development of CAA section 112 standards. This reading has been upheld by the court in *U.S. Sugar Corp. v. EPA*, 830 F.3d 579, 606–610 (D.C. Cir. 2016). The court's reasoning in *U.S. Sugar* applies equally to CAA section 129 standards given the similarities between the CAA section 112 and 129 standard setting criteria. Therefore, we are removing 40 CFR 60.2918 and 40 CFR 60.3025, which provided exemptions for SSM.

We are also finalizing, as proposed, other changes to the SSM standards in light of the EPA's experience with the CAA section 129 solid waste incinerator rules. These changes include harmonizing revisions to other rule provisions that reference SSM, such as: revising the definition of "Deviation" to remove language for periods of SSM; clarifying that the 12-hour rolling average values must include periods of continuous emissions monitoring systems (CEMS) data during startup and shutdown by adding a definition of "CEMS data during startup and shutdown" in 40 CFR 60.2977 and 40 CFR 60.3078; revising the equations used to calculate the 12-hour rolling average for CO; and updating requirements related to SSM for

recordkeeping and reporting in 40 CFR 60.2949, 60.2957, 60.2958, 60.3046, 60.3052, and 60.3053. These changes are further described in section III.F.2 of this preamble. We did not receive comments on the proposed removal and revisions of provisions related to SSM.

F. What are the final rule amendments addressing testing, monitoring and reporting requirements?

1. Initial and Continuous Compliance Demonstration

Consistent with the proposal, we are finalizing the substitute means of compliance demonstration (SMCD) for VSMWC and IWI units with capacities less than or equal to 10 TPD. We have considered the cost of testing, and we recognize that testing and monitoring requirements can impose substantial financial burdens and technical challenges on owners and operators of these sources. The SMCD provides an alternative to the general testing and monitoring requirements for VSMWC and IWI units with capacities less than or equal to 10 TPD. VSMWC and IWI units with capacities greater than 10 TPD must continue to demonstrate compliance by individual stack testing.

However, stack testing is unfeasible for some VSMWC and IWI units with capacities less than or equal to 10 TPD. As we stated in the proposal and confirmed by information we gathered between the proposal and this final action, we believe that many of these units are located in remote areas, such as SRIs located on oil and natural gas platforms on Alaska's North Slope in the Beaufort Sea and other areas that are similarly isolated which represent 29 of the 31 OSWI units that are not rudimentary combustion devices, surrounded by water or wetlands, or that have limited infrastructure or are difficult to access. Getting testing crews to those incinerators would be extremely challenging and costly. Other units could be considered readily accessible, but they are not equipped with stacks adequate to allow emissions sampling for performance tests. Such units would need to be modified to be able to conduct compliance testing. However, costs and logistics would prevent these types of incinerators from making the necessary changes. In still other cases, it simply may not be physically possible to modify an existing incinerator stack to allow compliance testing.

Therefore, we are finalizing, as proposed, an option for using a "representative" initial compliance demonstration. Owners and operators of VSMWC or IWI units with capacities

less than or equal to 10 TPD who have not previously submitted testing meeting the requirements of the final standards would have to submit detailed information about their units, including: the make, model, and manufacturer of the unit; the type and capacity of the unit; the unit's air pollution control devices (if any); the type and quantity of waste incinerated; and the charge rate. They would then identify a representative performance test in the EPA's WebFIRE database.

A representative performance test must be conducted on an OSWI unit that has similar throughput, methods of processing and burning waste, operating temperatures, types of wastes or supplemental fuels burned, and waste profile as the OSWI unit using the SMCD. A representative performance test must be conducted consistent with the requirements in the OSWI rule; demonstrate compliance with the OSWI standards; and include the following information in the report: unit design (including air pollution control devices), charge rate during the test, type of operation, combustion temperature during the test, types of waste burned during the test and the relative amount of each waste to the total waste burned (waste profile), type and amount of supplemental fuels used during the test, and, if the tested unit has an air pollution control device, the operating parameter data for the control device during the test. Not all tests in the WebFIRE database may qualify. If there is no representative performance test available in the WebFIRE database, the OSWI unit with capacity less than or equal to 10 TPD cannot use the SMCD and must instead conduct its own initial performance test.

To use this substitute option for demonstrating initial compliance, the owner/operator must submit the following information: a notice of intent to use the SMCD; waste profile information; and a representative performance test.⁷ Each of these elements is discussed below.

a. Notice of Intent

We are finalizing provisions that offer VSMWC and IWI units with capacities less than or equal to 10 TPD two options for initial performance tests: conducting an individual initial performance test or using the SMCD described below. New VSMWC and IWI units with capacities less than or equal to 10 TPD that were constructed after August 31, 2020, or

⁷ This information must be submitted through the EPA's Central Data Exchange (CDX) using the Compliance and Emissions Data Reporting Interface (CEDRI).

modified or reconstructed after December 29, 2025, must either complete initial performance tests within 60 days after reaching the charge rate at which they will operate, but no later than 180 days after initial startup,⁸ or they must submit a notice of intent to use the SMCD by December 29, 2025, or within 60 days after initial startup, whichever of these dates is later. The notice of intent should include the manufacturer, make, model, and type of unit, and documentation showing that the capacity of the unit is less than or equal to 10 TPD. Owners and operators of existing VSMWC and IWI units with capacities less than or equal to 10 TPD (constructed on or before August 31, 2020, and not modified or reconstructed after December 29, 2025) are not required to submit a notice of intent to the EPA. However, they are required to either identify the results of an existing performance test in the EPA's WebFIRE database that is representative of their type of OSWI unit, if they intend to use the SMCD, or conduct an initial performance test; this must happen no later than 3 years after a state plan is approved or no later than July 1, 2030, whichever date is earlier.

b. Waste Profile Information

As we stated in the proposal, we recognize that the SMCD relies on the availability of the results of performance tests conducted on potentially representative sources in the EPA's WebFIRE database. Because we anticipate that owners and operators using the SMCD will need time to meet its conditions, we encourage them to submit their notices of intent to use the substitute means of compliance and collect data for waste characterization as soon as possible after this rule is promulgated. For this reason, beginning on December 29, 2025, and until the owner or operator identifies a representative performance test, but before March 30, 2027 or 60 days after the OSWI unit reaches the charge rate at which it will operate or 180 days after initial startup, whichever is later, each owner or operator of a new VSMWC and IWI unit with capacity less than or equal to 10 TPD planning to use the SMCD must collect data on a weekly basis to characterize the unit's operations and waste profiles, as further discussed in section III.F.1.c of this preamble. The waste profile information will record the unit's differing waste streams and

waste variability in order to develop a representative waste profile. The unit's profile can then be used to identify a representative performance test for the unit's SMCD.

c. Representative Testing

We are finalizing an SMCD alternative allowing owners and operators of VSMWC and IWI units with capacities less than or equal to 10 TPD to identify a representative performance test in the WebFIRE database and submit information about the representative performance test and documentation of how the performance test is representative for their unit (*e.g.*, based on the unit type and design, charge rate, operating temperatures, types of waste burned, and any air pollution control devices) to the Administrator through the EPA's Central Data Exchange (CDX) using the Compliance and Emissions Data Reporting Interface (CEDRI). Owners and operators must maintain a record of the representative performance test report (acquired from the EPA's WebFIRE database) and the submitted documentation of how the test is representative. The EPA encourages owners and operators to find similar sources by reviewing the notices of intent to use the SMCD and/or performance tests, available in the EPA's WebFIRE database. The EPA still anticipates that similar sources will coordinate to develop test protocols and find cost sharing opportunities by having representative sources conduct a performance test that can be used by all sources in that group.

If owners and operators of existing VSMWC and IWI units with capacities less than or equal to 10 TPD choose to use the SMCD, we are requiring them to submit SMCD information identifying the representative performance test through CDX using CEDRI beginning no later than March 30, 2027 or 60 days after the OSWI unit reaches the maximum charge rate at which it will operate, but no later than 180 days after initial startup, whichever date is later. This period will allow the owner or operator time for reviewing notices available on the EPA's WebFIRE database, finding and coordinating with similar sources, developing a testing protocol that will work for all sources within a group, conducting the performance tests, and electronically submitting the results of the test through CEDRI (see section III.E.3 of this preamble for a discussion of electronic reporting). The period will also allow time for the EPA to transfer these results to the EPA's WebFIRE database and for owners and operators to find a representative performance test and

submit information on how it is representative to the Administrator.

Given the time needed to identify and coordinate similar source groups or develop test protocols, and because the compliance date for new sources is earlier than the compliance date for existing sources and it is uncertain how many tests will be conducted, owners or operators of existing sources are encouraged to start collecting information that would be useful for identifying similar sources and submit this information as soon as possible. This will greatly increase the likelihood that a representative test will be available in the WebFIRE database prior the compliance deadline.⁹ As noted in our proposal, owners and operators who do not provide their initial waste characterization data in a timely manner could miss the opportunity to avail themselves of this option due to the amount of planning, time, and resources required for similar sources to coordinate and perform performance tests. Owners and operators who cannot find a representative test conducted for a unit that is similar to their unit must conduct their own initial performance tests.

d. Continuous Compliance Demonstration

We are also finalizing, as proposed, an alternative waste characterization (AWC) option for demonstrating continuous compliance available to all VSMWC and IWI units with capacities less than or equal to 10 TPD that are subject to the OSWI rules. We are finalizing this AWC option in response to comments pointing out the difficulties of testing these units, which are generally located in areas that are remote and difficult to access.

In lieu of conducting annual performance tests, this alternative demonstration of continuous compliance will require recordkeeping. The recordkeeping requirements include recording the source-specific waste profiles and incinerator unit operating parameters, including the daily average charge rate and the 3-hour average combustion chamber temperature of the unit. As discussed in section IV.C of this preamble, in response to comments received, we have modified the final rule to require

⁹ The distinction between a new and existing unit does not in itself preclude the use of a performance test. If a new unit is similar in design and operation to an existing unit, the new unit may use a performance test conducted by an existing unit and vice versa. However, if a performance test is conducted on an existing unit, it must, among other things, demonstrate initial compliance with the emissions limits for new units for a new unit to use it as a representative performance test.

⁸ For units that startup between August 31, 2020, and December 29, 2025, the initial performance test must be conducted within 60 days after the OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup, or by February 25, 2026, whichever date is later.

that the facility use its records at the end of each calendar quarter to demonstrate that the waste combusted is consistent, within +/- 15 percent by weight, with the percentage established for the components of the waste stream according to the waste profiles established during the facility's initial performance test or established in the representative initial performance test for units using the SMCD.¹⁰ The facility must report any deviations from the quarterly average waste profile requirements in its deviation report. Additionally, the records must demonstrate that the unit is operated within the charge rate and temperature ranges established during the initial performance test or the representative performance test.

As described in the proposal, we are finalizing a requirement that if the facility anticipates combusting a waste stream with a different profile, the owner/operator must conduct a performance test of the unit with a waste stream representative of the new waste profile, or alternatively, must identify a representative performance test report in the WebFIRE database and submit the information required by the SMCD, before combusting the modified waste stream.¹¹ Similarly, if the facility anticipates exceeding or operating outside of the established operating parameter ranges, the owner/operator must conduct a performance test of the unit while it is operating at the new parameter limits, or find a representative performance test with those operating parameter limits in the WebFIRE database and submit the information required by the SMCD, to confirm that the unit continues to meet the OSWI emission standards under the new operating parameter limits. Failure to comply with the retesting requirement is a deviation from the OSWI standards.

We are finalizing, as proposed in the 2020 Proposed Rule, revisions to monitoring to make the OSWI standards more consistent with the monitoring requirements in other CAA section 129 rules. For example, the only air

pollution control device for which the 2005 final OSWI standards provide operating requirements is wet scrubbers. We are finalizing revisions to 40 CFR 60.2916 and table 2 to subpart EEEE and 40 CFR 60.3023 and table 3 to subpart FFFF to include operating limits and operating parameter monitoring requirements for additional controls that may be employed for OSWI units, including dry scrubbers, electrostatic precipitators, and fabric filters. Additionally, we are finalizing a clarification to 40 CFR 60.2917 and 40 CFR 60.3024 that OSWI units that use an alternate method for air pollution control beyond a wet scrubber, dry scrubber, electrostatic precipitator, or fabric filter, including other methods such as material balance, may petition the EPA for specific operating parameter limits in these cases. The final requirements add flexibility for facilities by expanding the control options available. In addition, we are finalizing as proposed revisions to the requirements in 40 CFR 60.2916, 40 CFR 60.2928, 40 CFR 60.3023, and 40 CFR 60.3023 for owners and operators of OSWI units using control options to require that the minimum operating parameters (*e.g.*, combustion operating chamber temperature, pressure drop, liquid flow rate) established for initial compliance are calculated based on the lowest 1-hour average as measured during the most recent performance test (or representative performance test) demonstrating compliance. The current OSWI standards required that these parameters be calculated using the average as measured during the most recent performance test. Similarly, we are revising the continuous compliance requirements in 40 CFR 60.2932(c) and 40 CFR 60.3023(c) to specify the averaging times for continuous compliances for operating parameters for the extended control options (generally, 3-hour rolling averages).

Moreover, as we proposed, we are removing the requirement for CO and oxygen (O₂) CEMS for VSMWC and IWI units with capacities less than or equal to 10 TPD that use the AWC option in lieu of complying with the annual performance testing requirements. We are making this change for the same reasons that we are finalizing an alternative to the annual performance test. In addition to the cost of maintaining CEMS, calibrating a CEMS generally requires an annual stack test to verify the operation of the CEMS. Providing an alternative to conducting annual performance tests while continuing to require CEMS, which need annual stack tests, would not

achieve the stated goals and benefits of providing an alternative to annual performance tests for showing continuous compliance.

We are finalizing, as proposed, an option included in the 2020 Proposed Rule that allows OSWI units to use CO CEMS data in lieu of initial and annual testing for CO, provided the CEMS has been previously certified and is meeting the ongoing quality assurance/quality control requirements. Currently, facilities are required under 40 CFR 60.2927 and 40 CFR 60.3030 to conduct initial and annual performance testing to determine compliance with all emission limitations, including CO, and to also continuously monitor CO emissions using CEMS under 40 CFR 60.2939 and 40 CFR 60.3038. Facilities that opt to use CO CEMS data to demonstrate continuous compliance must use a 12-hour rolling average of the 1-hour arithmetic average CEMS data to determine compliance with the CO emission limitations. However, the initial performance evaluation (CEMS certification) must be completed prior to collecting CEMS data for the initial compliance demonstration. Under the final rule, such units could also use CO CEMS data in lieu of conducting an annual performance test for CO. This change provides flexibility for sources and reduces the cost burden associated with testing, while assuring compliance based on continuously measured emissions data.

As discussed in section IV.C of this preamble, for OSWI units that choose to conduct annual testing, we are revising the compliance timeline for the annual performance test in response to comments that weather and geographic constraints may prevent facilities from meeting the timeline on a 12-month basis. The final rule requires annual performance tests to be conducted within 14 months following the initial performance test and, subsequently, within 14 months from the prior years' tests.

For a more detailed discussion of these amendments addressing testing and monitoring requirements for VSMWC and IWI units see section II.B.4 of the proposal preamble (85 FR 54178). Section IV.C of this preamble provides a summary of the significant comments on the proposal and our responses to those comments. A full compilation of comments and responses can be found in the document, *Summary of Public Comments and Responses for the Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units Review*, which is available in the docket (see

¹⁰ If, for example, the paper component of the waste stream during initial testing was 20 percent, then burning waste streams with a paper component between 5 and 35 percent of the total waste stream would be acceptable quarterly operation and, assuming all other requirements are met, additional testing would not be required for the source.

¹¹ To use a representative test, the owner or operator of a unit must show that the representative test is of a unit having a similar throughput, method of processing and burning waste, charge rate, operating temperatures, waste management plan, estimated waste variability, and waste profile as its unit.

Docket EPA–HQ–OAR–2003–0156) for this rulemaking.

2. Recordkeeping and Reporting

For units using the SMCD to demonstrate initial compliance, we are finalizing, as proposed, a requirement that owners and operators maintain the following records: the notice of intent to use the SMCD, along with documentation of the unit's design, operation, and capacity; initial waste characterization and operating data; and documentation of how the selected substitute test is representative of the unit.

We are also finalizing recordkeeping requirements to be used with the AWC option. Owners and operators must maintain records on: start and end times of the unit's operation; the amount or weight of each waste type (*e.g.*, pounds of solid waste, food waste, wood, or yard waste); the percentage of each type of waste burned; the 3-hour average temperature and charge rate; and operating records for units using air pollution controls such as a wet scrubber, dry scrubber, electrostatic precipitator, or fabric filters. Unit owners and operators must also keep records of periods when the waste profile does not meet the requirements as tested. As stated in the proposal, these recordkeeping requirements will help ensure that VSMWC and IWI units with capacities less than or equal to 10 TPD choosing the AWC option can demonstrate compliance with the emission and operating limits of the OSWI standards. The recordkeeping will also help to demonstrate that the percentage of waste components burned by VSMWC and IWI units with capacities less than or equal to 10 TPD is within ± 15 percent of the percentages established for each waste category incinerated at a unit according to the profiles established during the initial performance test or representative performance test. We are also finalizing, as proposed, a reporting requirement that owners and operators include in annual reports a statement that there were no deviations from the waste characterization requirements and that the unit has been operated within the operating parameter limits. As we stated in the proposal, these recordkeeping and reporting requirements are intended to help ensure that there is adequate information available with which to determine compliance with the standards; to ascertain the severity of any failure to meet a standard; and to further assure compliance with the standards at all times.

Consistent with the proposal, we are also clarifying the timeline for owners and operators who choose the SMCD to submit their annual compliance reports. They must submit their annual compliance reports no later than 12 months after they submit the representative initial performance test and description of how the test is representative for the OSWI unit.

We are finalizing, as proposed, revisions to the recordkeeping and reporting requirements for deviations included in the 2020 Proposed Rule to clarify that a deviation includes any "failure to meet an applicable standard" and to clarify what information must be recorded and reported. These changes include the following:

- Revising the definition of "deviation" to remove language for periods of SSM, as discussed in section III.E of this preamble.
- Revising 40 CFR 60.2932(c) and 40 CFR 60.3033(c) to clarify the alarm time that constitutes a deviation from the operating limit for OSWI units with fabric filters and bag leak detection systems.
- Revising 40 CFR 60.2942(f) and 40 CFR 60.3041(f) to clarify that, for OSWI units using CEMS, failure to collect required data is a deviation from the monitoring requirements.
- Revising 40 CFR 60.2949 and 40 CFR 60.3046 to specify that facilities must retain a record identifying the calendar dates, times, and durations of malfunctions and a description of the failure and the corrective action taken.
- Revising 40 CFR 60.2956(e) and 40 CFR 60.3051(e) to clarify that for OSWI units with CEMS, the annual report must include a statement that there were no periods during which the CEMS were inoperative, inactive, malfunctioning, or out of control.
- Removing and reserving deviation reporting requirements (previously 40 CFR 60.2956(g); 40 CFR 60.3051(g)) previously included as part of the annual report to remove redundant reporting; these requirements are included in the deviation report submitted on a semiannual basis (40 CFR 60.2958; 40 CFR 60.3053).
- Modifying the annual reporting requirements in 40 CFR 60.2956 and 40 CFR 60.3051 to require facilities to provide a statement that there was no deviation identified from the waste characterization (*i.e.*, each quarter, the waste types burned are within 15 percent variation of the profiles established during the initial performance test) and the unit has been operated within the charge rate and temperature ranges established when no

deviations have occurred during the reporting period.

- For deviation reporting, revising the title of 40 CFR 60.2957 and 40 CFR 60.3052 to "What other reports must I submit if I have a deviation?" and reorganizing 40 CFR 60.2957(a) and 40 CFR 60.3052(a) to be consistent with the definition of "deviation" and to better reflect the types of deviations which must be reported.

- Modifying the requirements of 40 CFR 60.2958 and 40 CFR 60.3053 to clarify the contents of the deviation report, including identifying the calendar dates, times, and durations of any deviations and a description of any corrective actions taken, and adding new requirements to report deviations from the waste characterization and operating parameter limits established for VSMWC and IWI units with capacities less than or equal to 10 TPD.

As discussed in section IV.C.2 of this preamble, we are making one minor change to the proposed reporting requirements for qualified OSWI unit operators at 40 CFR 60.2956(j) and 40 CFR 60.3051(j) to clarify that facilities must report "the start date, start time, and duration in hours for each period of operation when all qualified OSWI unit operators were unavailable for more than 12 hours but less than 2 weeks". The proposed language referenced "each period when qualified OSWI unit operators were unavailable . . ." and unintentionally included periods of off-season, maintenance, or periods of shutdown. The final rule clarifies the text to "each period of operation" to exclude off-season, maintenance, and shutdown periods.

Lastly, we are finalizing, as proposed, additional changes to the recordkeeping and reporting requirements in 40 CFR 60.2949(b) and 40 CFR 60.2956(d) and (f) and 40 CFR 60.3046(b) and 40 CFR 60.3051(d) and (f) from the 2020 Proposed Rule that include consistency edits based on the revisions to allow for use of CO CEMS data in lieu of annual testing for CO (for OSWI units that have capacities greater than 10 TPD) (discussed in section III.F.1 of this preamble) and the revisions to the monitoring requirements to ensure consistency with other CAA section 129 rules such as CISWI (*e.g.*, adding operating parameters for controls other than a wet scrubber that may be employed for OSWI units and clarifying the frequency of the data recording or averaging for each required operating parameter, discussed in section III.F.1 of this preamble).

For a more detailed discussion of these amendments to recordkeeping and reporting requirements, see section

II.B.5 of the proposal preamble (85 FR 54178; August 31, 2020). Section IV.B.2 of this preamble provides a summary of key comments we received on these amendments and our responses.

3. Electronic Reporting

To increase the ease and efficiency of data submittal and data accessibility, we are finalizing, as proposed, a requirement that owners or operators of OSWI units submit required performance test reports, performance evaluation reports, deviation reports, and annual compliance reports through the EPA's Central Data Exchange (CDX) using the Compliance and Emissions Data Reporting Interface (CEDRI), as included in the 2020 Proposed Rule. The final rule requires that performance test results be submitted in the format generated through the use of the EPA's Electronic Reporting Tool (ERT) or an electronic file consistent with the extensible markup language (XML) schema on the ERT website.¹² Similarly, performance evaluation results of CEMS that include a relative accuracy test audit must be submitted in the format generated through the use of the ERT or an electronic file consistent with the XML schema on the ERT website.

For deviation reports and annual compliance reports, the final rule requires owners and operators to use the appropriate spreadsheet template to submit information to CEDRI, beginning June 30, 2026, or once the reporting forms have been made available in CEDRI for at least 1 year, whichever date is later. The final version of the template for these reports will be located on the CEDRI website.¹³ If the reporting template specific to this subpart is not available in CEDRI at the time that the report is due, facilities must submit the report to the Administrator at the appropriate address listed in 40 CFR 60.4. Once the form has been available in CEDRI for at least 1 year, facilities must submit all subsequent reports via CEDRI. Furthermore, we are finalizing, as proposed, provisions that allow facility operators to seek extensions for submitting electronic reports for circumstances beyond the control of the facility, *i.e.*, for a possible outage in the CDX or CEDRI (see 40 CFR 60.2961(d) and 40 CFR 60.3056(d)) or, for a force majeure event, see 40 CFR 60.2961(e) and 40 CFR 60.3056(e) in the time just prior to a report's due date, as well as

provisions outlining the process to assert such a claim.

For a more detailed discussion of these final amendments, see section II.B.6 of the preamble to the 2020 Proposed Rule (85 FR 54178), as well as section III.B of this preamble on compliance with the Paperwork Reduction Act (PRA). For a more thorough discussion of electronic reporting, see the memorandum, *Electronic Reporting Requirements for New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Rules*, which is available in the docket (see Docket EPA-HQ-OAR-2003-0156) for this rulemaking.

4. Technical Edits, Clarifications, and Additional Revisions

We are finalizing several of the revisions that we proposed for technical corrections, harmonizing changes, clarifications, and improvements to the OSWI standards in the 2020 Proposed Rule, with the exception of certain proposed changes related to testing or compliance requirements for VSMWC and IWI units with capacities less than or equal to 10 TPD that we are finalizing with revisions (see sections III.F.1 and III.G of this preamble). These revisions include:

- Including operating limits and operating parameter monitoring requirements for additional controls that may be employed for OSWI units, including dry scrubbers, electrostatic precipitators, and fabric filters, and revisions to clarify that OSWI units that use an alternate method for air pollution control may petition the EPA for specific operating parameter limits.
- Revising the requirements for owners and operators of OSWI units using control options to require that the minimum operating parameters (*e.g.*, combustion operating chamber temperature, pressure drop, liquid flow rate, etc.) established for initial compliance are calculated based on the lowest 1-hr average as measured during the most recent performance test (or representative performance test) demonstrating compliance, and revising the continuous compliance requirements to specify the averaging times for continuous compliances for operating parameters for the extended control options (which is generally based on 3-hour rolling averages).
- Clarifying that for continuous monitoring, the 12-hour rolling average values must include CEMS data during startup and shutdown.
- Adding a requirement that the incinerator operator training course under 40 CFR 60.2905(c) and 40 CFR

60.3014(c) must include coverage of good combustion practices as well as waste characterization procedures, and related actions for prevention and correction of malfunctions.

- Adding a provision to 40 CFR 60.2911 and 40 CFR 60.3020 to clarify that batch units must always have a qualified operator accessible times during the operation of the unit.
- Updating 40 CFR 60.2890 and 40 CFR 60.2998 to clarify the principal components of the subparts include definitions and table.
- For existing units, adding new section 40 CFR 60.3003 to clarify that certain substitute means of compliance demonstration requirements must be completed prior to the compliance date.
- Modifying 40 CFR 60.2910 to 40 CFR 60.3019 to clarify that site-specific documentation must include procedures for establishing initial and continuous compliance.
- Updating requirements for initial and annual performance tests such that they must be conducted according to the methods and meet the revised emissions limitations specified in tables 1 through 1b to subpart EEEE and tables 2 and 2a to subpart FFFF, as applicable.
- Updating 40 CFR 60.2922(e), 40 CFR 60.2940(c), 40 CFR 60.3027(e), and 40 CFR 60.3039(c) to add references to ASME/ANSI PTC 19.10-198 Part 10 (2010), "Flue and Exhaust Gas Analyses" (previously approved as an alternative method to EPA Method 3B in the 2005 OSWI rule).
- Adding an additional test method, ASTM D7520-16, "Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere," as an acceptable alternative to EPA Method 9 for opacity. This test method was identified as an acceptable alternative to EPA Method 9 when specific provisions are followed.
- Revising 40 CFR 60.2932(d) and 40 CFR 60.3033(d) to specify that VSMWC and IWI units with capacities less than or equal to 10 TPD using control devices must continuously monitor operating parameters and specifying the averaging values to demonstrate continuous compliance.
- Revising 40 CFR 60.2939 and 40 CFR 60.3038 (requirements for installation and calibration of CEMS) such that they apply only to OSWI units with a capacity greater than 10 TPD.
- Clarifying the installation and calibration requirements for operating parameter equipment in 40 CFR 60.2944 and 40 CFR 60.3043, including adding new requirements for bag leak detection systems.
- Revising 40 CFR 60.2949(b) and 40 CFR 60.3046(b) to incorporate

¹² <https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>.

¹³ <https://www.epa.gov/electronic-reporting-air-emissions/cedri>.

recordkeeping for data from OSWI units that use an alternate method for air pollution control beyond a wet scrubber, dry scrubber, electrostatic precipitator, fabric filter, or other method such as material balance.

- Clarifying that for CO CEMS, records of annual performance evaluations must be maintained (40 CFR 60.2949(g) and 40 CFR 60.3046(g)).
- Adding a recordkeeping requirement for notifications submitted for excluded units, such as temporary-use incinerators.
- Revising 40 CFR 60.2954 to clarify that a copy of the waste management plan must be submitted following the initial performance test, for consistency with 40 CFR 60.3049(c).
- Clarifying that for facilities with a title V permit, the permit may address the submittal timeline of the annual report (40 CFR 60.2955, 40 CFR 60.3050).
- Minor clarifications to the content of the annual reports and deviation reports, including what information must be submitted if a performance test is conducted during the annual period and what information may be excluded if the reports are submitted via CEDRI (40 CFR 60.2956, 40 CFR 60.3051).
- Other minor grammatical or technical edits (*e.g.*, corrections to typographical errors or cross-references within existing provisions, or to clarify existing provisions).

We are also including several additional minor clarifying edits in the final rule based on comments received during the public comment period, such as adjusting the testing requirements for seasonal weather issues. The comments and our responses can be found in section IV.B.1 of this preamble and in the *Summary of Public Comments and Responses for the Standards of Performance for New Stationary Sources and Emission Guidelines for Existing*

Sources: Other Solid Waste Incineration Units Review, available in the docket for this rulemaking.

G. What are the effective and compliance dates of the standards?

In the 2020 Proposed Rule, we established that OSWI units with capacities less than or equal to 10 TPD that commenced construction after August 31, 2020 are new units and those that commenced construction prior to August 31, 2020 are considered existing incineration units. We are finalizing the effective and compliance dates for OSWI units to distinguish between new and existing OSWI units and to require any incinerator already subject to a current OSWI standard to continue to comply with that standard until the effective date of the revised OSWI standards. Table 4 of this preamble provides the applicable compliance dates for new and existing OSWI units.

The effective date of this final action is August 29, 2025. We are finalizing the compliance dates for the amended rule as proposed. The compliance dates depend on whether the OSWI unit is a VSMWC or IWI unit with capacity less than or equal to 10 TPD, or a VSMWC or IWI unit with a capacity greater than 10 TPD, and whether the OSWI unit is a new or existing unit.

However, we are revising the dates by which a source is considered a new source to be consistent with the construct of CAA sections 111 and 129. A new VSMWC or IWI unit is a unit that commenced construction after August 31, 2020, or commenced modification or reconstruction on or after December 29, 2025. Sources that commenced construction after December 9, 2004, or commenced reconstruction or modification on or after June 16, 2006, which are currently new sources under the 2005 OSWI rule, will become

existing sources. However, these sources must continue to comply with the requirements of 40 CFR part 60, subpart EEEE, including the emission limits in table 1 to the subpart, until the unit is subject to 40 CFR part 60, subpart FFFF through an approved state plan or Federal plan. The 2005 OSWI rule emission limits for new and existing sources were identical, so the stringency of the limits and ability of the unit to comply with the limits is not changing for sources which were new sources under the 2005 OSWI rule and will become existing sources under the this final rule.

Similarly, as discussed in sections III.C and IV.A of this preamble, SRIs which are currently regulated under the CISWI rules will become subject to regulation under the OSWI rule in this final action. We believe that all or most of these units will be VSMWCs with capacities less than or equal to 10 TPD. If any SRIs meet the definition of a new unit, then these new units must demonstrate compliance with the final rule by no later than December 29, 2025, or by the date the unit first begins operation, whichever is later. If any SRIs do not meet the definition of a new unit, then these units must demonstrate compliance by July 1, 2030 or 3 years after the effective date of the state plan approval, whichever is earlier. However, SRIs that do not meet the definition of a new unit, and which are currently regulated under the CISWI rules must continue to demonstrate compliance with subpart CCCC or DDDD of this part, or subpart IIIa of part 62, until the unit becomes subject to the requirements of an approved state plan or federal plan that implements subpart FFFF of this part (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units).

TABLE 4—COMPLIANCE SCHEDULE FOR NEW AND EXISTING UNITS

For. . .	Complete this action	By this date
New units as defined in 40 CFR 60.2886	Initial Performance Test.	60 days after unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.
Existing units as defined in 40 CFR 60.2992.	Initial Performance Test.	No later than 180 days after final compliance date.
New units as defined in 40 CFR 60.2015	Initial Performance Test.	60 days after unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.
Existing units as defined in 40 CFR 60.2550.	Initial Performance Test.	No later than 180 days after final compliance date.
New units subject to requirements in 40 CFR 60.2932(a).	Annual performance test.	No later than 14 calendar months following the initial performance test.
Existing units subject to requirements in 40 CFR 60.3033(a).	Annual performance test.	No later than 14 calendar months following the initial performance test.

This action eliminates the SSM provisions at 40 CFR 60.2918 and 40 CFR 60.3025 and adds electronic reporting. Eliminating the SSM provisions will provide more data on emission limits and operating limits. As noted at proposal, the finalized electronic reporting provisions will reduce burden on regulated facilities, delegated air agencies, and the EPA. Accordingly, we are finalizing the removal of SSM provisions and the addition of electronic reporting for all OSWI units. As stated in section III.F.3 of this preamble, for deviation reports and annual compliance reports, the final rule requires owners and operators to use the appropriate spreadsheet template to submit information to CEDRI beginning June 30, 2026, or once the reporting forms have been made available in CEDRI for at least 1 year, whichever date is later. The final rule requires owners and operators to submit performance test reports and CEMS performance evaluation reports to CEDRI beginning on December 29, 2025.

1. OSWI Units With Capacities Less Than or Equal to 10 TPD

For VSMWC and IWI units with capacities less than or equal to 10 TPD, we are finalizing revised MACT standards and revised compliance, monitoring, and testing requirements. For new sources, CAA section 129(f)(1) requires that performance standards and other requirements shall be effective 6 months after the promulgation of the final rule. For these purposes, a new VSMWC or IWI unit with capacity less than or equal to 10 TPD is a unit that commenced construction after August 31, 2020, or commenced modification or reconstruction on or after December 29, 2025. We are finalizing, as proposed, that these new units must demonstrate compliance with the final rule by no later than December 29, 2025, or by the date the unit first begins operation, whichever is later.

For existing sources, CAA section 129(f)(2) provides that the performance standards and other requirements shall be effective not later than 3 years after the state plan is approved or July 1, 2030, whichever is earlier. For these purposes, an existing VSMWC or IWI unit with capacity less than or equal to 10 TPD is one for which construction commenced on or before August 31, 2020.

For existing VSMWC and IWI units with capacities less than or equal to 10 TPD, we are finalizing a compliance date of July 1, 2030, or 3 years after the effective date of the state plan approval, whichever is earlier.

OSWI units with a capacity less than 10 TPD that commenced construction after December 9, 2004, or commenced reconstruction or modification on or after June 16, 2006, and that are subject to the 2005 OSWI standard must continue to comply with the 2005 OSWI standard until the unit is subject to 40 CFR part 60, subpart FFFF through an approved state plan or Federal plan.

2. OSWI Units With Capacities Greater Than 10 TPD

Under the final rule, OSWI units with a capacity greater than 10 TPD continue, with limited changes, to be subject to the requirements of the OSWI standards that were promulgated in 2005—either the NSPS or a plan promulgated pursuant to the EG. With certain exceptions (discussed below), these sources will continue to follow the emission and operating limits, including compliance, monitoring, and testing provisions, associated with the 2005 OSWI standards. However, because the definition of a new source is being revised, the compliance dates are changing in the final rule. Emissions and operating limits apply to new OSWI units with a capacity greater than 10 TPD when they begin to operate, although there are some pre-construction requirements (see 40 CFR 60.2881). For existing OSWI units with a capacity greater than 10 TPD (that is, OSWI units that commenced construction on or before August 31, 2020, or commenced reconstruction or modification before December 29, 2025), CAA section 129(f)(2) provides that performance standards and other requirements shall be effective as expeditiously as practicable after approval of a state plan or promulgation of a Federal plan, but no later than 5 years after they are promulgated. Therefore, compliance for existing sources must be demonstrated by July 1, 2030, or 3 years after the effective date of the state plan approval, whichever is earlier. However, incineration units with a capacity greater than 10 TPD that commenced construction after December 9, 2004, or commenced reconstruction or modification on or after June 16, 2006, and that are subject to the 2005 OSWI standard must continue to comply with the 2005 standard until the unit is subject to 40 CFR part 60, subpart FFFF through an approved state plan or Federal plan.

IV. Public Comments and Responses

Additional comments and our specific responses can be found in the comment summary and response document titled *Summary of Public Comments and Responses for the Standards of*

Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units Review, which is available in the docket (see Docket EPA–HQ–OAR–2003–0156) for this rulemaking. Key comments and responses are discussed below.

A. What key comments did we receive on the applicability of OSWI requirements, and what are our responses?

Comment: The EPA received several comments on the proposed revisions to add a definition of “rudimentary combustion unit”. One commenter did not support the proposed addition of a definition, expressing concerns that prematurely changing the definition puts the EPA on track to develop regulations without appropriate data. The commenter requested that EPA conduct an advanced notice of proposed rulemaking to ask for additional data and work with and provide resources to Tribes to collect this data.

Other commenters supported the proposed changes, but at least one commenter recommended that the definition be simplified to provide ease of compliance. One commenter stated that the definition should include a “non-exhaustive” list of what units meet the definition of a rudimentary combustion device, such as cyclonic burn barrels, 55-gallon burn barrels, and locally obtained or manufactured burn receptacles such as dumpsters.

The commenter also provided input on the individual criteria that EPA proposed as part of the definition. Specifically, commenters noted that the wording “managing air flow and discharging flue gases from combustion” is confusing. The commenters stated that in any combustion device, a stack, chimney or pipe is used to remove the post-combustion flue gases or to direct the exhaust gas to the atmosphere, and that the air flow (combustion air) is handled, controlled, and metered at the burden. Commenters therefore recommended that the text “managing air flow” be removed.

Commenters also questioned the meaning of the criterion “burners designed to manage the combustion process”. Commenters stated that EPA’s intent is unclear and that if the criterion is meant to include any devices that have burners or a specific type of burner (e.g., burner with modulating or staging controls) then the language should be updated to “designed to initiate and/or maintain or assist the combustion process” or to more clearly explain the type of burner. Commenters also

questioned the meaning of “supplemental fuel burners or nozzles” as included in the proposed definition. Commenters stated that if the intent is to not include devices with a specific type of burner and “supplemental fuel burners or nozzles” or to exclude devices equipped with secondary combustion, this should be more plainly stated.

One commenter added that the proposed definition’s inclusion of a capacity limit of “less than or equal to 10 TPD that is designed and constructed without one or more of the following elements” may inadvertently discourage businesses or villages from acquiring small modern packaged incinerators that are cleaner burning but that are equipped with all five elements. The commenter noted that rudimentary combustion devices will almost exclusively be hand-fed in portable (hand-carried) batches, and that 10 TPD of hand-held or delivered batches would be equivalent to 500 individual batches, daily.¹⁴ The commenter stated that this amount exceeds the realistic expectations of the population statistics of the average village communities using such devices. The commenter suggested that the rationale of a specific number for capacity or throughput deserves additional consideration, especially in consideration of the recordkeeping requirements that would be required for compliance with weight throughput limitations (which would be excessive for remote areas and ineffective for most batch units). The commenter questioned what recordkeeping or reporting would be required to verify compliance, especially provided that these activities generally fall below permitting thresholds. The commenter suggested that the EPA may want to consider setting a volume limit threshold for these devices (e.g., “smaller than a dump truck”), or consider adding the qualifier “uncompacted, loose” to the type of trash that may be burned in such devices. Another commenter requested that EPA consider the potential unintended consequences of any future regulation of such devices. Specifically, the commenter stated that the EPA must not force communities with few resources to purchase commercially available combustion devices.

Other commenters criticized the proposed definition as overly broad and

lacking in protective provisions, by not adequately narrowing the circumstances, locations, or devices that would be eligible. Commenters supported including restrictions to ensure that the use of such units is limited to those areas that truly have no better options, including very clear descriptions and specifics about the types of devices that are included in the definition of “rudimentary combustion device” and the criteria that must be met for a geographic area to qualify, so that only those with the logistical challenges described in the proposal will be eligible for the exemption. Other commenters expressed that the proposed rule did not define the circumstances or restrictions under which rudimentary combustion devices may be used and recommended that the EPA add a clarification to the definition to avoid use of the devices where access to municipal solid waste disposal is readily available or where installation of such devices could result in the circumvention of the OSWI standards. Commenters also objected to the proposed definition as it would apply in their jurisdiction, which prohibits open burning; the commenters warned the definition is confusing and could lead to an increase in air pollution.

Several commenters requested that the EPA provide more clarity on what geographic areas would be qualified to be exempt from the OSWI regulations. A commenter noted that Alaska is geographically diverse, with areas of limited or no road access, and that the EPA should clarify whether units in the following circumstances are exempt: (1) devices located in rural areas not accessible by the Federal Aid Highway System, including what distance from the road area is necessary for exemption; (2) devices transported and utilized by oil spill prevention and response teams in remote areas for response cleanup; (3) devices located in municipal areas at businesses or other commercial institutions that may have refuse service provided they are only used for on-site generated waste; and (4) devices located at industrial facilities along the Federal Aid Highway system that are days away from waste disposal facilities, including what distance from an organized landfill or from an improved road system qualifies for exemption. One commenter added the rule should ensure that use of a rudimentary combustion device would not be allowed when it conflicts with more stringent state or local rules and regulations. Other commenters generally opposed the broad applicability of the definition of rudimentary combustion

unit throughout the U.S., recommending that the EPA adjust the definition to pertain specifically to Alaska, and take time to develop standards for the rest of the country.

One commenter also requested that the EPA consider providing clear rules related to the use of rudimentary combustion devices during emergency remote spill responses. The commenter explained that the waste from such spills is effectively managed through incineration in small batch cyclonic burn barrels or other devices. The commenter requested that any rules on such usage be easy to interpret such that they do not require EPA agency interpretation or concurrence prior to use (including any limitations on the type of device that is a “rudimentary combustion device” or any limitations on geographic siting requirements). The commenter stated that if EPA concurrence remains necessary during an emergency spill, the authority should be granted to EPA Federal On-Scene Coordinators regardless of the disaster classification of the response.

Response: In the final rule, we are adopting a definition of “rudimentary combustion device” to be a combustion device with a capacity less than or equal to 10 TPD that is designed and constructed without one or more of the following elements: (1) a stack, chimney, or pipe designed for the purpose of discharging flue gases from combustion; (2) mechanical draft to provide air flow; (3) burners designed to initiate and/or assist the combustion process, including burners designed to burn supplementary fuel; or (4) an ancillary power supply to operate.

For the final rule, we have revised the applicability of the final OSWI standards as proposed in the 2024 SNPRM to address issues and concerns raised for small units that are rudimentary combustion devices. The EPA is finalizing its decision to add a definition for “rudimentary combustion device” to distinguish these types of primitive devices from those addressed in today’s rule. The EPA agrees with commenters regarding certain clarifications to the criteria included in the proposed definition, specifically, removal of text related to the use of a stack for “managing air flow” and the clarification of text describing the type of burners included in the criterion. The EPA is removing the phrase “managing air flow” to reduce confusion regarding the stack function. We are also clarifying the criterion regarding burners to manage the combustion process. We are adopting language similar to what commenters suggested to indicate that we mean burners that

¹⁴ Per 40 CFR 60.2977 (Subpart EEEE) and 40 CFR 60.3078 (Subpart FFFF), a batch OSWI unit means an OSWI unit that is designed such that neither waste charging nor ash removal can occur during combustion, and a continuous OSWI unit means an OSWI unit that is designed to allow waste charging and ash removal during combustion.

initiate and/or assist with combustion. In light of this clarification, we have also lumped supplementary fuel burners in with other burners that manage the combustion process, as the purpose of supplementary fuel is to initiate combustion or to aid in better combustion.

We disagree with commenters who requested a specific list of unit types that are considered rudimentary combustion devices, but rather, acknowledge that a number of combustion unit types may be considered “rudimentary” if they have a capacity of less than 10 TPD and were designed or constructed without one of more of the defined criterion. As described in the 2024 SNPRM, the EPA identified rudimentary combustion devices as primarily located within the state of Alaska, and consulted with state and Tribal agencies in the state of Alaska in assessing the types of combustion devices referenced. We determined that these rudimentary devices are often primitive in nature, most often not commercially constructed or engineered, and have capacities less than 10 TPD. Although we solicited comment on the matter, we did not receive any comments on the 2024 SNPRM that provided additional information or data on the typical capacity or volume thresholds for these units, and as such, are maintaining the proposed capacity threshold of 10 TPD; this threshold remains appropriate as we anticipate that all rudimentary combustion devices that fail to include the design elements included in the definition, by their nature and construction, would have capacities less than 10 TPD. We emphasize that the final rule does not set standards for these rudimentary combustion devices because they lack key features of commercially available incineration units and the emissions information, limits, and controls developed for the OSWI rule are not appropriate for them. The EPA is therefore not setting emission standards for these units in this rule.

Although we solicited comment on the location of units, number of units in rural communities, and emissions information from these units in the 2024 SNPRM, we did not receive any additional information in response to the 2024 SNPRM. The Agency intends to consider requirements for these units in a future effort and would seek additional information regarding these units and the impacts of any regulations at that time. Because we received no information in response to our 2024 SNPRM solicitation, the EPA is also not setting requirements or restrictions

regarding the geographic location or circumstantial restrictions on the use of rudimentary combustion devices under the OSWI standards; the definition of rudimentary combustion device in the final OSWI rules applies to the entire United States. The final rules do not usurp existing local or state regulations that may apply to these units, which will continue to apply.

Comment: We received one comment contending that the proposal fails to set CAA section 129 standards for previously excluded units and therefore contravenes the CAA and violates the EPA’s obligations under a consent decree and pursuant to the voluntary remand. The commenter stated that the proposed regulations expressly exempt or exclude a wide variety of other waste combustion units, including: (1) solid waste-burning cement kilns; (2) various waste-burning boilers and process heaters; (3) residential incinerators; (4) agricultural waste incinerators; (5) wood waste incinerators; (6) construction and demolition waste incinerators; (7) crematories; (8) contaminated soil treatment facilities; (9) rural IWLs; (10) incinerators and ACIs in isolated areas of Alaska; (11) incinerators located on remote islands; (12) temporary use incinerators used in disaster or emergency recovery efforts; (13) units that combust contraband or prohibited goods; (14) units burning national security documents; (15) co-fired combustors; (16) institutional boilers and process heaters; and (17) pathological waste incineration units. The commenter added that all of the categories identified combust solid waste and none of them fall within the narrow exemption of CAA section 129(g).

The commenter generally contends that, under CAA section 129, the EPA must set standards for all solid waste incineration units, without exception. The commenter further contends that, under CAA section 129, the OSWI rule must set standards for all “other” incinerators, that is, all incinerators not already subject to regulation under the EPA’s MWC rules, medical waste incinerator rules, or CISWI rules.

The commenter refers to a “Partial Consent Decree” entered in *Sierra Club v. Jackson*, No. 01–1537 (PLF) (D.D.C.), under which the EPA was to propose, by November 30, 2004, a rule establishing standards for OSWI units and to promulgate, by November 30, 2005, a final rule establishing such standards. The commenter contends that the EPA’s failure to set standards for various excluded types of combustion units violates its obligations under that Partial Consent Decree.

The commenter also asserts that the EPA sought and obtained, in 2016, a “voluntary remand” of the OSWI standards from the court (*Sierra Club v. EPA*, No. 06–1066 (D.C. Cir.)). The commenter states that the EPA sought the voluntary remand to bring the OSWI standards into compliance with certain decisions issued by the D.C. Circuit. The commenter contends that the EPA’s failure to set standards for the excluded types of combustion units identified by the commenter (*i.e.*, solid waste-burning cement kilns; various waste-burning boilers and process heaters; residential incinerators; agricultural waste incinerators; pathological waste incineration units, etc.) violates its obligations pursuant to the voluntary remand.

The commenter further claims that the EPA’s failure to set standards for currently unregulated incinerators fails to satisfy CAA section 129(a)(5). The commenter cited *Louisiana Environmental Action Network v. EPA*, 955 F.3d 1088 (D.C. Cir. 2020) (*LEAN*), and maintained that the EPA is required, in the course of a CAA section 129(a)(5) rulemaking, to bring its OSWI standards into compliance with the CAA and that the EPA’s failure to set standards for all OSWI units, including the excluded incinerators, in the course of its CAA section 129(a)(5) rulemaking, violates that section.

The commenter further cited *NRDC v. EPA*, 489 F.3d 1250 (D.C. Cir. 2007), in which, the commenter said, the D.C. Circuit made clear that institutional waste incinerators that recover energy are combusting solid waste and must be regulated as incinerators under CAA section 129. The commenter added that the *NRDC* ruling holds that any unit that combusts waste is an incinerator, whether it recovers energy or not. The commenter stated that EPA sought and obtained a voluntary remand allegedly to address the aspects of its rule that are inconsistent with *NRDC*. The commenter added that EPA’s failure to change its definition of institutional waste incinerator to include units that recover energy is flatly unlawful and displays contempt for the Clean Air Act and the courts and bad faith in implementation of the unopposed remand.

Response: As the commenter recognizes, we proposed the definition of “other solid waste incineration unit” on the 2004 proposal for the OSWI standards to cover very small municipal waste combustion units and institutional waste incineration units but proposed to exclude certain types of other units (see 69 FR 71472, December 9, 2004). In response to the 2004 proposal for the

OSWI standards, the EPA received comments concerning the proposal to exclude various units from the OSWI standards, and the EPA addressed comments on both covered and excluded units at that time (70 FR 74870, 74874–74881; December 16, 2005). The EPA was challenged on the 2005 OSWI rule (*Sierra Club v. EPA*, No. 06–1066, (D.C. Cir.)), which eventually led to the 2016 voluntary remand of the 2005 OSWI rule.

The EPA disagrees with the assertion that the EPA failed to satisfy its obligations under the Partial Consent Decree entered in *Sierra Club v. Jackson*, No. 01–1537 (PLF) (D.D.C.). Under the Partial Consent Decree, the EPA was required to issue a final rulemaking establishing standards for OSWI units under CAA section 129(a)(1)(E) on or before November 30, 2005. The Partial Consent Decree contained no requirements regarding the content of the regulation. The EPA satisfied this obligation by signing the final rulemaking titled, “Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units” on November 30, 2005. 79 FR 74870.

The EPA disagrees that *NRDC v. EPA*, 489 F.3d 1250 (D.C. Cir. 2007), requires the EPA to set emissions standards for all OSWI units, “without exception.” Rather, *NRDC* focused on whether the EPA could determine that certain facilities that were combusting solid waste could be regulated under CAA section 112, rather than CAA section 129. The *NRDC* decision held that the statutory definition of “solid waste incineration unit” is clear and unambiguous and does not permit the EPA to exclude commercial and industrial units combusting solid waste from regulation under CAA section 129. However, the *NRDC* decision does not address whether the EPA is required to establish emissions standards for *all* “other categories” of solid waste incineration units, as opposed to commercial or industrial incinerators, which are categories Congress clearly required to be regulated. EPA is continuing to assess the the *NRDC* decision, which vacated the EPA’s definition of “commercial or industrial solid waste incineration unit” because it excluded some units combusting solid waste for the purpose of energy recovery, but has not yet proposed to take action following remand on whether the language in section 129(a)(1)(E) requires requires regulation of “every [] possible type of incineration unit burning any type of solid waste.” See 70 FR at 74875.

We further disagree with the commenter’s contention that the EPA is required, in the course of a periodic review of the OSWI standards under CAA section 129(a)(5), to set standards for all solid waste incinerators that are not already regulated under the rules for municipal waste incinerators; hospital, medical or infectious waste incinerators; or commercial or industrial waste incinerators. The *LEAN* (955 F.3d 1088 (D.C. Cir. 2020)) decision considered standards set under CAA section 112(d)(6). CAA section 112(d)(6) applies to “emission standards promulgated under [section 112].” CAA section 129 applies to a specific category of sources: non-hazardous solid waste incinerators. In CAA section 129, Congress itself designated the source categories to be regulated. CAA section 112, on the other hand, delegates to the Administrator the authority to identify source categories to regulate and to set emission standards for them, CAA sections 112(c) through (d). By contrast, in CAA section 129, Congress specifies sources that the EPA must regulate:

- “[S]olid waste incineration units with capacity greater than 250 [TPD] combusting *municipal waste*.” (Italics added.)
- “[S]olid waste incineration units with capacity equal to or less than 250 [TPD] combusting *municipal waste* and units combusting *hospital waste, medical waste and infectious waste*.” (Italics added.)
- “[S]olid waste incineration units combusting *commercial or industrial waste*.” (Italics added.)

However, Congress left “the promulgation of standards under section 7411 of this title and this section applicable to other categories of solid waste incineration units” (CAA section 112(a)(1)(e)) up to the Administrator’s discretion.

CAA section 112(d)(6), the section of the CAA considered in *LEAN*, requires a periodic review (every 8 years) of standards promulgated under CAA section 112. *LEAN* did not discuss nor make any decisions concerning the scope or nature of the EPA’s periodic review under CAA section 129(a)(5). The discussion in *LEAN* focused on the precise language in CAA section 112(d)(6), which differs from the language of CAA section 129(a)(5). Specifically, CAA section 112(d)(6) requires that the EPA periodically “review, and revise as necessary” CAA section 112 emission standards. CAA section 129(a)(5) requires that the EPA “review, and in accordance with this section and section [111] of this title, revise” the CAA section 129 standards and requirements. The language within

CAA section 129(a)(5) does not otherwise cross-reference CAA section 112. Further, the “as necessary” language in CAA section 112(d)(6) (which is not found in CAA section 129(a)(5)) was key to the decision in *LEAN*. The decision notes, for example, that the “only question” was “whether the EPA lawfully may complete a section 112(d)(6) review and ‘revise’ an existing underinclusive emission standard ‘as necessary’ without supplying the missing controls.” 955 F.3d at 1096.

The commenter claims that the language of CAA section 129(a)(5) is “closely analogous” to CAA section 112(d)(6), and therefore imposes the same obligation the *LEAN* court found. The EPA disagrees. The two key features of the statutory language the *LEAN* court pointed to in CAA section 112(d) are not at issue here. The court first noted that the “standards” referred to in CAA section 112(d)(6) must include limits for each HAP the category emits, and an “emission standard” under that provision “includes as many limits as needed to control all the emitted air toxics of a particular source category.” *LEAN* at 1097. In contrast, CAA section 129 requires the EPA to establish emissions standards only for certain, specified pollutants. Even if “emission standard” as used in CAA section 129(a)(5) refers to all limits, the EPA has established those limits for the specified CAA section 129 pollutants.

The commenter also claims that the EPA’s failure to propose, here, to eliminate the various excluded units in 40 CFR 60.2887 and 40 CFR 60.2993 and as identified by the commenter (*i.e.*, solid waste-burning cement kilns; various waste-burning boilers and process heaters; residential incinerators; agricultural waste incinerators; pathological waste incineration units, etc.) from the OSWI standards and expand the applicability or coverage of the standards fails to satisfy the terms of the voluntary remand granted by the D.C. Circuit in 2016. The EPA sought and obtained a voluntary remand of the 2005 OSWI rule “to allow the EPA to consider what potential revisions, if any to the final rule may be appropriate in light of relevant decisions including *Sierra Club v. EPA*, 479 F.3d 875 (D.C. Cir. 2007), *NRDC v. EPA*, 489 F.3d 1250 (D.C. Cir. 2007), and *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008).”¹⁵ As explained in the 2020 proposal and above, this final action addresses certain issues involved in the 2016 voluntary remand of the OSWI standards

¹⁵ Motion for Voluntary Remand, *Sierra Club v. EPA*, no. 06–1066 (D.C. Cir. filed Jan. 29, 2016).

including changes to the SSM provisions and revised subcategories and MACT standards that better reflect actual emissions test data from OSWI units and the population of OSWI. The EPA is continuing to evaluate other aspects of the remand not addressed in this final action.

For the final rule, we have revised the applicability of the final OSWI standards to address issues and concerns raised for units that are rudimentary combustion devices. As discussed in section III.B and above in this section IV.A of this preamble, the EPA is finalizing adding a definition for “rudimentary combustion device” to address certain combustion devices that lack key elements typical of incineration units. Because the EPA believes that rudimentary combustion units lack key elements of other OSWI incineration units, the emissions information, limits, and controls developed for the OSWI rule are not appropriate for them. Any limits that the EPA may set for rudimentary combustion units in the future would be based on information and data that are appropriate for those units.

Comment: One commenter requested that the EPA clarify the applicability of the CISWI standards and the OSWI standards, asserting that as proposed, the same units that meet the definition of a “small OSWI unit” in the OSWI standards also meet the definition of a “commercial and industrial solid waste incineration unit” under the CISWI standard. The commenters stated that this potential confusion is not entirely eliminated by 40 CFR 60.2020(j) and 60.2555(j) of the CISWI rules that state that units subject to 40 CFR part 60, subparts EEEE or FFFF are exempt from the CISWI standards or by 40 CFR 60.2887(d) and 60.2993(d) in the OSWI rules that state units subject to 40 CFR part 60, subparts CCCC or DDDD are exempt from the OSWI standards. The commenter specifically urged the inclusion of a new paragraph in 40 CFR 60.2887 and 40 CFR 60.2993 of the OSWI rules that states: “Incinerators in Alaska that meet the definition of small OSWI unit under subparts EEEE and FFFF of this part are not subject to subparts CCCC or DDDD.”

Response: We agree with commenters that clarification regarding the applicability of CISWI to certain units located in the State of Alaska that are now subject to OSWI is warranted. However, the commenter’s proposed language to add an exclusion for units subject to 40 CFR part 60, subparts EEEE and FFFF from CISWI is inappropriate for OSWI. Instead, we are finalizing revisions to the CISWI NSPS and EG

that clarify the applicability of the standards to small remote incinerators that may now be subject to the OSWI standards, specifically the standards for VSMWC. In 2024, the EPA finalized development of a Federal plan implementing the CISWI standards in states that do not have an approved state plan (89 FR 100092, December 11, 2024). The final rule included revisions to exclude small remote incinerators in the state of Alaska from the Federal plan, which reflected prohibitions on the implementation of CISWI standards to units in the State of Alaska that were implemented by Congress.¹⁶ To address the concerns raised by commenters and to align the CISWI NSPS and EG with the CISWI Federal plan, we are finalizing a similar amendment to the CISWI NSPS and EG requirements at 40 CFR 60.2020 and 40 CFR 60.2555 to clarify that small remote incineration units located in the State of Alaska are not subject to the CISWI standards as specified in the Consolidated Appropriations Act of 2024, H.R. 4366, section 432. However, because existing units would not be subject to the control requirements in the OSWI standards until they become subject to a state plan or Federal plan that implements 40 CFR part 60, subpart FFFF, we have included language within the exclusion to clarify that such units remain subject to 40 CFR part 60, subparts CCCC or DDDD until the unit becomes subject to a state plan or Federal plan that implements 40 CFR part 60, subpart FFFF. The changes are consistent with final revisions to 40 CFR 60.2886(a)(5) and 40 CFR 60.2992(a)(3) to clarify the applicability dates for OSWI units, as discussed in section IV.D of this preamble.

B. What key comments did we receive on the OSWI subcategories and related MACT floor redeterminations?

Comment: One commenter contended that EPA has no authority to create subcategories for Section 129 standards, and therefore, cannot create subcategories in OSWI for units with capacities greater than 10 TPD and units with capacities less than 10 TPD. The commenter asserted that while Section 112 allows EPA to “distinguish among classes, types, and sizes of sources

within a category or subcategory in establishing such standards,” Section 129 does not have similar language. The commenter added that Section 129 shows that Congress considered which subcategories of incinerator it wanted, and that Congress created them itself. The commenter stated that by creating additional subcategories, EPA not only exceeds its statutory authority but defies Congress’s plainly expressed intent that the only subcategories of incinerator would be those Congress expressly enumerated in Section 129(a)(1). The commenter added that EPA’s failure to identify any statutory authority for its subcategories or to explain why it believes it has such authority is unreasonable and arbitrary.

Response: CAA section 129(a)(2) states that “The Administrator may distinguish among classes, types (including mass-burn, refuse-derived fuel, modular and other types of units), and sizes of units within a category in establishing such standards.” We interpret this language as allowing us to develop subcategories for source categories being regulated. Further, the EPA has cited this statutory authority for other CAA section 129 subparts. The 1999 proposed CISWI rules clearly state “Categories may be divided into subcategories when differences (such as design, fuel, or waste type, etc.) between given types of units lead to corresponding differences in the technical feasibility of applying emission control techniques” (64 FR 67097, November 30, 1999) and the 1995 HMIWI standards state, “Section 129 states that the Administrator may distinguish among classes, types, and sizes of units within a category in establishing the standards and guidelines. In other words, EPA may subcategorize the MWI source category in establishing standards and guidelines” (65 FR 10669–70, February 27, 1995). Therefore, we are establishing subcategories for OSWI (IWI and VSMWC) as proposed based on size—including units that have capacities greater than 10 TPD and units that have capacities less than or equal to 10 TPD. Our decision to finalize subcategories for IWI and VSMWC OSWI is further discussed in section III.C and this section of this preamble.

Comment: One commenter contended that the EPA does not have sufficient data on smaller units of less than or equal to 10 TPD to establish emission limits and other requirements. Consequently, the commenters stated that it is likely that requirements for larger units will be unnecessarily placed on smaller units. Another commenter explained that comparisons of emission

¹⁶ As specified in the Consolidated Appropriations Act of 2024, H.R. 4366, section 432, the EPA is precluded from “expending funds to implement or enforce certain EPA regulations for commercial and industrial solid waste incineration units with respect to units in the state of Alaska that are defined as small remote incinerator until a subsequent regulation is issued.” Consolidated Appropriations Act, 2024, Public Law 118–42 (2024, March 8). <https://www.congress.gov/bills/118th-congress/house-bill/4366/text>. See also 89 FR 100097, December 11, 2024.

limits shown in the proposed rule to the emissions from the smaller units under than 3 TPD are well below the emissions for larger incinerators for a number of pollutants. The commenter specifically compared the particulate matter and cadmium emissions limits for new small OSWI units to the emission limits for SRIs under table 8 of the CISWI rule, noting that the emissions limits for new small OSWI units for these pollutants are below the corresponding CISWI limits, and other limits for these units, including hydrogen chloride and NO_x, are very close to the SRI limits in the CISWI rule. Commenters added that the proposed rule subjects incinerators with capacity less than 3 ton per day to the same requirements even if the emission profiles do not seem to justify the requirements to perform enhanced control measures (such as wet scrubbers and baghouses). These commenters included additional concerns related to the requirements to install pollution controls such as wet scrubbers for SRIs in Alaska, which they countered would only burden small operations and small businesses. The commenters requested that EPA exempt small Alaska incinerators with an operational capacity of less than or equal to 3 TPD from the final rules. One commenter suggested that EPA create a third subcategory of units that have capacities less than or equal to 3 TPD and these units should be excluded if they incinerate greater than 30 percent MSW and are not regulated under the CISWI rule. Another commenter stated that if EPA is going to regulate units with capacities less than or equal to 3 TPD, it must collect additional information from the small incinerator manufacturers and establish MACT floor emission limits that are achievable.

Other commenters supported the regulation of small remote incineration units under the OSWI standard, acknowledging that the emission limits for small OSWI units developed in the 2020 Proposed Rule were developed specifically based on test data from the Alaskan SRI units, and in many cases, these units are unable to comply with the emission limits for existing units under CISWI. These commenters generally supported the creation of a subcategory for smaller OSWI units but requested additional modifications and clarifications to the subcategory. One commenter requested that EPA reconsider defining the subcategory for small OSWI units based on the “capacity” of units less than 10 tons of solid waste per day. The commenter pointed to the prior subcategory for SRI

units promulgated under CISWI, which is for incineration units “that combust 3 tons or less of solid waste per day”. The commenter stated that it is unlikely that any SRI (as included in the proposed emission limits) has the physical capacity to burn 10 TPD, or that even any facility operating an SRI has the capacity to generate 10 TPD of waste for incineration. The commenter pointed to at least one SRI unit located at the ConocoPhillips Kuparuk facility that has a manufacturer-listed capacity of over 10 TPD, however, the commenter asserted that it does not reflect the actual or practical capacity to combust solid waste because the manufacturer-listed capacity includes the weight of the incinerated material, the weight of the fuel used for combustion, the weight of air combusted, and the weight of any moisture in the unit. The commenter added that, in that case, the manufacturer-listed “capacity” is not strictly limited to the capacity to incinerate solid waste and is greater than its capacity for waste. The commenter added that it is “pragmatically impossible” for the Kuparuk unit to combust 10 tons of solid waste per day, and that this capacity could not be reached even if the incinerator usage was maximized to two consecutive 12-hour shifts; the commenter provided that on average, the unit burns about 1.25 TPD and has never exceeded 3 TPD despite the manufacturer’s listed capacity. The commenter requested that EPA clarify that the 10 ton per day capacity language used to differentiate the small OSWI subcategory reflects a practical or operational “capacity” to incinerate waste and not a manufacturer listed capacity that may reflect non-waste fuel, air, and moisture. The commenter asked EPA to change the size threshold to reflect the amount of solid waste the unit combusts. The commenter added that defining the subcategory on the amount of solid waste combusted, as was done in the CISWI rule, is a better approach.

Response: Regarding the comments that EPA should set the capacity for small OSWI units considering the capacity of SRI units currently regulated under CISWI, we disagree. As we described in the proposal, the EPA has sufficient data from several small remote incinerators from testing conducted in both 2010 and 2014 to calculate emission limits using the same statistical intervals used to calculate the CISWI SRI emission limits (see 85 FR

54185).¹⁷ We collected test data from 29 units of this size and proposed calculated emissions limits at the level of the MACT floor which we have determined are representative for VSMWC and IWI units with capacities less than or equal to 10 TPD in the OSWI source category.¹⁸ The emission limits applicable to these units already consider their size, since they are based on test data and design information gathered from units of similar size. For these reasons, we disagree with the request that the EPA categorically exempt or create a separate subcategory for small Alaska incinerators with an operational capacity of less than or equal to 3 TPD under the OSWI rules.

Regarding the comment asking that the EPA clarify that the 10 ton per day “capacity” language reflects a practical or operational “capacity” to incinerate solid waste, not a manufacturer listed capacity, we generally disagree with the comment and believe the rules are clear as written. When determining a unit’s capacity in the context of the OSWI rules, the owner or operator must use the “design capacity” of the unit calculated using the equations in the regulations. (See 40 CFR 60.2975) The “capacity” of continuous and batch¹⁹ VSMWC units is defined in the rules—this contrasts with emissions-based thresholds *e.g.*, for prevention of significant deterioration (PSD) applicability which considers enforceable physical or operational constraints. While the OSWI rules sometimes refer to the “maximum design waste burning capacity” (see, *e.g.*, 40 CFR 60.2953 and table 4), this phrase is also intended to describe the design “capacity” of OSWI units, with respect to the maximum design amount of municipal solid waste or refused-derived fuel that may be charged (not including air or moisture content or non-waste fuels). We believe the design capacity is the most appropriate basis for subcategorization under OSWI. Any other basis, such as operational load,

¹⁷ See Docket Item No. EPA-HQ-OAR-2003-0156-0138 and the memorandum entitled *Small Remote Incinerator (SRI) Emissions Data From CISWI* in the docket for this action for more discussion on data collected from small remote incinerators.

¹⁸ For more information about emission limit calculations, see *Emission Limit Calculations for Existing and New Sources for the Final Other Solid Waste Incinerator (OSWI) Rulemaking*, available in the docket for this action (Docket ID No. EPA-HQ-OAR-2003-0156).

¹⁹ Per 40 CFR 60.2977 (Subpart EEEE) and 40 CFR 60.3078 (Subpart FFFF), a batch OSWI unit means an OSWI unit that is designed such that neither waste charging nor ash removal can occur during combustion, and a continuous OSWI unit means an OSWI unit that is designed to allow waste charging and ash removal during combustion.

would likely be variable depending on operating conditions and could therefore result in confusion about which standards are applicable to the unit at which time. For this reason, the commenter's suggestion that the subcategories be based on practical capacity to incinerate waste is not feasible. Using design capacity, *e.g.*, is consistent with the requirements in 40 CFR, part 60, subpart AAAAA, 40 CFR 60.1460(d) and (e), which cover small municipal waste combustion units. We recognize that in two situations, for exempting small municipal waste combustion units that combust less than 11 TPD and for certain co-fired combustors with a fuel limitation, 40 CFR part 60, subpart AAAAA allows federally enforceable permitting limits. We created the OSWI subcategories for VSMWC and IWI units with capacities less than or equal to 10 TPD due to differences in operation (*e.g.*, batch versus continuous/semi-continuous feed), equipment complexity and whether emissions that are routed to a stack or flue could be routed to air pollution control devices for these units. Additional discussion on the final subcategories are in section III.C. of this preamble and in the preamble to the proposed rule (85 FR 54183). An OSWI unit with a capacity greater than 10 TPD may not comply with emission limits and compliance requirements for units with capacities less than or equal to 10 TPD, and consequently, the final rule does not provide for consideration of operational restrictions on the "capacity" of OSWI units to avoid compliance requirements designed for such units. As such, commenters are also incorrect that the rule subjects OSWI units with capacities less than or equal to 10 TPD to the same requirements for enhanced control measures (*i.e.*, wet scrubbers and baghouses) to meet emissions limits as those required for large units. In our analysis of the MACT floor for VSMWC and IWI units with capacities less than or equal to 10 TPD, we used data obtained from operating units with capacities less than or equal to 10 TPD and have assumed that additional units in these subcategories, should they exist, would be similar in design, uncontrolled, and burn similar MSW-type waste as those units reflected in the SRI dataset. Based on the data, we believe that any VSMWC and IWI units with capacities less than or equal to 10 TPD would not require additional controls to meet the proposed standards that are being finalized. We add that for the final rule we have also revised the applicability of the final OSWI

standards to address issues and concerns raised for certain units with capacities less than or equal to 10 TPD that may be considered rudimentary combustion devices, as explained in sections III.B and IV.A of this preamble.

Comment: A commenter stated that EPA's decision to subcategorize OSWI units greatly weakens the standards for the newly created small OSWI subcategory, contravenes CAA section 129's floor provisions, and is arbitrary. The commenter stated that some of or all these units—certainly the best performing ones, those with the lowest emissions—have already been meeting the EPA's existing standards consistently for years. The commenter added that the average emission level achieved by these units therefore cannot possibly be worse than the existing CISWI standards. The commenter concluded that the floors cannot be worse than the existing standards.

Response: We explained in the preamble to the proposed rule that the prior floors were not based on OSWI units but on HMIWI units (85 FR 54183) and the SRI emissions test data used to calculate the emission limits for the VSMWC and IWI with capacities less than or equal to 10 TPD subcategories are more representative of and better reflect the emissions achievable for new and existing units in each category required under CAA sections 129(a)(2) and (4). The standards are based on the level of the MACT floor calculated using the SRI emission data but are not identical to the CISWI standards because updated data and procedures were used in the OSWI calculation.²⁰ While the EPA does not update MACT floors to be less stringent than existing limits for the same subcategory based on the 5-year review process, the emission limits for the VSMWC and IWI with capacities less than or equal to 10 TPD represent newly established subcategories. It is not appropriate to compare the stringency of standards between rules or subcategories. This means that neither the current CISWI standards nor the OSWI standards for units with capacities greater than 10 TPD are appropriate points of comparison for the new MACT floors.

²⁰ For more information on the SRI data, see Document ID No. EPA-HQ-OAR-2003-0156-0138. For more information about the MACT floor calculation, see the memorandum *Emission Limit Calculations for Existing and New Sources for the Final Other Solid Waste Incinerator (OSWI)* Rulemaking available in the docket for this action (Docket ID No. EPA-HQ-OAR-2003-0156).

C. What key comments did we receive on other amendments, and what are our responses?

1. Testing and Compliance

Comment: We received one comment related to the proposed 12-month deadline for annual compliance tests. The commenters stated the proposed 12-month deadline at 40 CFR 60.2933 and 40 CFR 60.3034 creates potential compliance problems over time for SRI operators in Alaska. The commenters explained that testing on SRI units is more difficult than on typical units, and the window for testing SRI units is constrained by weather and may be impracticable during the long North Slope winter season. The commenters stated the proposed 12-month window creates issues of compliance date "creep" when operators seeking to submit data reasonably in advance of the EPA deadlines (*e.g.*, one week early to ensure timely delivery), inadvertently and progressively push the testing deadline earlier and earlier into the calendar year, potentially into problematic testing periods for SRI units. The commenters requested that the EPA set the annual compliance testing deadline at 14 months, to allow operators flexibility to keep testing in optimal weather windows over time. The commenters added that this is consistent with the EPA practice for other rules and referenced 40 CFR 60.4415(a).

Response: We agree with the commenters' assertions that, for some OSWI units, seasonal weather issues may not allow testing within exact 12-month intervals. To address this concern, the final rule requires that annual performance tests be conducted no later than 14 months following the initial performance test and subsequent annual performance tests must be conducted within 14 months following the previous performance test.

Comment: We received two comments supporting the proposed alternative means to demonstrate compliance for VSMWC and IWI units with capacities less than or equal to 10 TPD, but the commenters contested that the proposed parameters (plus or minus 15 percent and on a weekly basis) are too narrowly constrained. The commenters explained that MSW mass generated by camp operations has the potential of being highly variable by the nature of its span of contents including paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials. The commenters stated that managing mass may be technically difficult for batch incinerators, as finite chamber volume limits mass manipulation. The

commenters further stated that managing mass also could be affected by short-duration projects that could cause food waste and other combustible materials to flux at sites using continuous, intermittent, or batch incinerators or where the incinerator is operated infrequently (e.g., an incinerator operated only bi-weekly). The commenters provided two examples of occasions when the weight ratio of incinerated waste can be temporarily skewed. One example the commenters provided is during facility “turnaround” periods when all meals are eaten on disposable trays that have a very low weight-to-volume ratio, which can temporarily skew the weight ratio of incineration units. The commenters explained that some operators typically burn wooden pallets at the bottom of their incinerators to facilitate the most efficient operation of the unit, and that during turnaround where there is a high volume of disposal trays, the weight of the pallets overshadows the light-weight disposable trays, likely skewing the solid waste composition outside the plus or minus 15 percent composition by weight requirement on a weekly basis. Commenters also provided a second example: an occasion when the weight ratio can be temporarily skewed during carcass incineration, which is required on occasion by state permits to dispose of an animal carcass to prevent health and safety concerns. The commenters explained that disposal of a caribou carcass that can average 350 to 400 pounds can also skew the weight ratio in the short term. The commenters suggested setting the plus or minus 15 percent weight requirement on a calendar-quarterly, rather than weekly, basis. The commenters pointed to CISWI as an example where tracking and averaging waste streams is accounted for on a calendar-quarter basis and requested that the EPA continue this approach. Although the commenters generally preferred this suggested approach, the commenters also suggested an alternative of setting the weekly obligation at plus or minus 30 percent rather than plus or minus 15 percent. The commenters also suggested the rule should include language that prevents units that are operated only seasonally from triggering the deviation and testing upon restarting after a period of being down.

One commenter requested that the previously submitted data for SRI units in Alaska can and should be used to demonstrate initial compliance or used as representative testing results for inclusion in the WebFIRE database.

Response: We are finalizing, as proposed, an option for using a “representative” initial compliance demonstration. We disagree with the commenters that 15 percent variability is insufficient or too narrowly constrained. The waste profile variability for a VSMWC or IWI unit with capacity less than or equal to 10 TPD will be based on the waste profile used in the unit’s initial compliance test, or, for owners and operators who use the SMCD demonstrating initial compliance, the waste profile used in the chosen representative test. VSMWC and IWI units with capacities less than or equal to 10 TPD that have highly variable waste streams will account for that variability in their initial compliance tests or, if the owner or operator is using the SMCD demonstrating initial compliance, by choosing a representative test with a similarly variable waste stream. Based on information currently available, the EPA anticipates that allowing greater than 15 percent variability in a waste stream after a unit’s initial compliance demonstration would not provide a sufficient means of demonstrating compliance on a continuous basis because it would not be representative of the conditions established during the compliance test. As such, it would not be possible to provide assurance that the unit continuously complies with the emission standards. Provided the facility has conducted or selected a representative performance test, the facility should be able to demonstrate compliance by assuring that the wastes combusted do not exceed 15 percent variability.

However, we also acknowledge that some OSWI units may be needed to dispose of unexpected and unplanned animal carcasses in remote areas. In such cases, the carcasses would skew the waste profile. To address this concern, we have revised the final rule to allow the percentage of waste burned for each waste category to be calculated on a quarterly average instead of weekly average.

We encourage owners and operators who elect to use the SMCD to identify their waste variability and waste characterization data as soon as possible so that representative waste profiles are tested in a timely manner. Owners and operators of VSMWC or IWI units with capacities less than or equal to 10 TPD who have not previously submitted testing data meeting the requirements of the rule in the development of the final standards will have to submit detailed information about their units and identify a representative performance test in the EPA’s WebFIRE database. As

noted in the preamble to the proposed rule (85 FR 54190), the representative performance tests must have been conducted according to the requirements in the OSWI rule, demonstrate compliance with the OSWI standards, and include the following information in the report: unit design (including air pollution control devices), charge rate during the test, type of operation, combustion temperature during the test, types of waste burned during the test and the relative amount of each waste to the total waste burned, type and amount of supplemental fuels used during the test, and, if the tested unit has an air pollution control device, the operating parameter data for the control device during the test. We understand that the units the commenters are referring to have conducted prior tests. However, if a test in question does not include all of the information needed to meet the requirements for the representative performance test in the rule, that test cannot be used as a representative performance tests for other OSWI units and will not be made available in WebFIRE. However, the owners or operators of these units can contact the Administrator under the General Provisions (see 40 CFR 60.8), to determine whether the prior tests conducted on the unit are acceptable to demonstrate compliance with requirements of the OSWI rule.

2. Recordkeeping and Reporting

Comment: Commenters stated that the requirements at 40 CFR 60.2956(j) and 40 CFR 60.3051(j) to report the start date, start time, and duration in hours for each period when all qualified OSWI unit operators were unavailable for more than 12 hours, but less than 2 weeks, appear to contemplate that an OSWI unit is under continuous operation. The commenters further stated that is not the case for many SRI units and stated that some SRI units are operated only seasonally, while other units may be shut down for days or weeks at a time for maintenance or other reasons. The commenters added that during those non-operational times, there may not be a qualified OSWI unit operator available onsite. To avoid unnecessary reporting, the commenters request that the reporting requirement be modified to require reporting for each period “of operation” when all qualified OSWI unit operators were unavailable.

Response: We agree with commenters that the reporting requirements for qualified OSWI unit operators were intended to apply for periods of active operation, and it was not our intent to require additional reporting for non-

operational periods. We are revising the proposed requirements at 40 CFR 60.2956(j) and 40 CFR 60.3051(j) to clarify that facilities must report the start date, start time, and duration in hours for each period of operation when all qualified OSWI unit operators were unavailable for more than 12 hours but less than 2 weeks.

D. What key comments did we receive on effective and compliance dates?

Comment: Commenters requested EPA clarify the applicability timeline for existing SRI units at 40 CFR 60.2886(a)(5). The commenters stated that the language as written appears to treat all existing SRI units (those constructed prior to August 31, 2020) as new units, subject to the OSWI NSPS, until a state or Federal plan is implemented for existing units, in which case these SRI units become existing units again. Specifically, commenters stated that the effective and compliance dates of the proposed NSPS and EG are unclear and present a conflict related to the definition of new units. The commenters stated that the proposed OSWI rule at 40 CFR 60.2886(a)(3) establishes that small OSWI units that commenced construction after August 31, 2020 are new units, but at section 60.2886(a)(5), says that small OSWI units that “commenced construction . . . prior to August 31, 2020 . . . are considered new incineration units.” The commenters stated that this conflicting language could be interpreted as treating certain VSMWC and IWI units with capacities less than or equal to 10 TPD that are currently in operation as new units because they were constructed prior to August 31, 2020. The commenters noted that the proposed language is inconsistent with the proposed transition provision in 40 CFR part 60, subpart EEEE, which recognizes that under the existing rules, OSWIs that commenced construction on or before December 9, 2004 are considered existing OSWIs (see proposed 40 CFR 60.2992(b)). The commenters indicated that the intent, based on the preamble for the proposed rule, is that a unit that is currently subject to the new source OSWI standard or other incinerator standard, continue to comply with that standard until it becomes subject to an approved state or Federal plan under 40 CFR part 60, subpart FFFF. However, the commenter stated that as drafted, this provision would force a unit that is currently classified as an existing OSWI to comply with the new source standard during this transition period. The commenter stated that clarification is required if this is not the intended

meaning. Further, commenters are uncertain what the purpose of this provision is, or how treating existing units (temporarily or otherwise) as new units is consistent with section 129 of the CAA. The commenters noted that this provision seems to put unnecessary risk on existing units of having to meet the NSPS for small OSWI units including the proposed emission limitations at table 1 of 40 CFR part 60, subpart EEEE, in the event a state or Federal implementation plan is not forthcoming. The commenters urged that only units constructed or modified after August 31, 2020, can be expected to comply with the limits in 40 CFR part 60, subpart EEEE, which were developed using the best controlled unit, whereas the 40 CFR part 60, subpart FFFF standards were developed using the top 12 percent criterion. The commenter urged that existing SRI units should instead be subject only to the requirements of subpart FFFF. The commenter recommended that the EPA use language in 40 CFR 60.2886 and 40 CFR 60.2992 that does not refer to small OSWI units constructed prior to 2020 as “new units” and adopt a new section 60.2886(c) to read as follows: “(c) Any incineration unit that is a small OSWI unit under 40 CFR 60.2977 and was constructed prior to August 31, 2020, but was required to comply with standards in subpart EEEE of this part prior to [the effective date of these rules] must continue to comply with the applicable standards in subpart EEEE of this part until the unit becomes subject to the requirements of an approved state plan or Federal plan that implements subpart FFFF of this part (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units).”

Another commenter stated that the reconstruction date of June 16, 2006, in 40 CFR 60.2977 and 40 CFR 60.3078 is not appropriate for SRI units which have not previously been subject to the OSWI rule. Commenters further stated that the definition of reconstruction should be modified for small OSWI units to the date of the proposed rule, August 31, 2020.

Response: In response to comment, the EPA is clarifying the regulatory text with regards to the dates used to define new and existing sources. A new VSMWC or IWI unit is a unit that commenced construction after August 31, 2020, or commenced modification or reconstruction on or after December 29, 2025. Sources that commenced construction after December 9, 2004, or commenced reconstruction or modification on or after June 16, 2006, which are currently new sources under the 2005 OSWI rule, will become

existing sources. However, these sources must continue to comply with the requirements of 40 CFR part 60, subpart EEEE, including the emission limits in table 1 to the subpart, until the unit is subject to 40 CFR part 60, subpart FFFF through an approved state plan or Federal plan.

Similarly, SRIs which are currently regulated under the CISWI rules will become subject to regulation under the OSWI rule in this final action. If any SRIs meet the definition of a new OSWI unit, then these new units must demonstrate compliance with the final rule by no later than December 29, 2025, or by the date the unit first begins operation, whichever is later. SRIs that do not meet the definition of a new OSWI unit and are currently regulated under the CISWI rules must continue to demonstrate compliance with subpart CCCC or DDDD of this part, or subpart IIIa of part 62, until the unit becomes subject to the requirements of an approved state plan or federal plan that implements subpart FFFF of this part (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units).

We are also revising the definitions of “Modification or modified unit” and “reconstruction” in 40 CFR 60.2977 and 40 CFR 60.3078 to clarify, in conjunction with the amended 40 CFR 60.2886(a)(4), that OSWI units that modify or reconstruct 180 days after publication of the final rule would become subject to 40 CFR part 60, subpart EEEE (New Source Performance Standards for Other Solid Waste Incineration Units).

V. Summary of Cost, Environmental, and Economic Impacts

A. What are the affected facilities?

The EPA estimates there are approximately 60 OSWI units at 56 facilities that will be affected by the final amendments. These OSWI units include 2 VSMWC units with capacity greater than 10 TPD at 2 facilities, 29 small VSMWC units with capacities less than or equal to 10 TPD at 25 facilities, and 29 ACI units at 29 facilities. The number of affected units has decreased from the 2020 Proposed Rule. Notably, we are finalizing a definition of “rudimentary combustion device” that applies to a number of combustion units that were previously included in the OSWI inventory. We estimate that the OSWI database developed for the 2020 Proposed Rule includes 9 VSMWC units and 105 IWI units with capacities less than or equal to 10 TPD that meet one of the four criteria for rudimentary combustion devices as described in

section III.D of this preamble. Based on our understanding that these units lack key features of other OSWI units, we have determined that the final OSWI standards are not appropriate for rudimentary combustion devices, and so they are not subject to the final OSWI standards. The basis of our estimate is provided in the memorandum, *Inventory of Other Solid Waste Incineration (OSWI) Units for Final OSWI Rulemaking*, which is available in the docket (see Docket EPA-HQ-OAR-2003-0156) to this rulemaking. We have not received any input on, and for various reasons do not anticipate, the construction of any new sources over the next 3 years. For example, facilities that might use an OSWI unit would be smaller in nature or institutional (e.g., schools). Use of incinerators has been consistently decreasing and the cost of compliance with the NSPS (testing, monitoring, and potentially some control) are likely considered too high to construct new OSWI units. As a result, such facilities would likely use other disposal methods, such as shipping to a CISWI unit or landfilling. While this is generally the case, one exception is remote units in Alaska at oil and gas companies (e.g., the SRIs). However, because most of those units were installed relatively recently and the estimated equipment life of an OSWI unit is 20 years, the EPA considers it unlikely that they will be replaced in the near future.

B. What are the air quality impacts?

EPA expects emissions to decrease relative to the primary baseline in which the 2005 standards have been remanded and no Federal or state plans exist. There are no estimated emissions reductions based on the final OSWI standards relative to an alternative baseline that assumes the 2005 standards are in effect. However, we note that 29 VSMWC units with capacities less than or equal to 10 TPD, which were previously regulated as SRIs by CISWI, will now be regulated under OSWI. Because these units combust municipal-type solid waste, even though they are located at commercial or industrial facilities, we determined they are more appropriately regulated under the OSWI rule (see sections III.C and IV.B of this preamble). Based on the OSWI emissions limits established for these units (which reflects more recent and accurate test data for these units), we estimate that removing these units from CISWI will result in forgone emissions reductions of 11.3 tons per year (tpy) of total CAA section 129 pollutants, with the majority being PM (8.56 tpy) and CO (2.6 tpy), as a result

of the units now being regulated under OSWI instead of CISWI. However, we note that many of these units, including SRIs located in the State of Alaska, were not currently meeting the CISWI standards and the implementation of the CISWI standards was prohibited for units in the State of Alaska by Congress (see section IV.A of this preamble). We anticipate that these units will be able to meet the standards in this final OSWI rule, which includes initial and continuous compliance requirements that reduce compliance costs, and could result in improved compliance relative to a baseline where these units are subject to CISWI. These emissions impacts are documented in the memorandum, *Costs and Impacts for Other Solid Waste Incinerators*, which is available in the docket (see Docket EPA-HQ-OAR-2003-0156) for this action.

C. What are the cost and economic impacts?

We anticipate that the final rule will ultimately result in a *de minimis* increase in burden for the affected sources. As EPA discusses in the EIA, we assume the remaining OSWI facilities have not complied with the 2005 rule and likely would not comply in the future with the 2005 requirements in the absence of this final action. To determine whether the final requirements would add to or reduce costs from what OSWI facilities already incur under the existing rule, we compared the costs for the final rule requirements with the costs incurred in a no-standards baseline, which reflects remand of the 2005 standards and the current lack of Federal and state plans. EPA also assessed costs relative to a baseline that includes costs incurred by affected units under the current OSWI and CISWI standards.

EPA notes that there is uncertainty regarding the appropriate baseline for this action given litigation history surrounding the 2005 standards and absence of state and Federal implementation plans. As discussed in the proposed rule (85 FR 54196), the EPA has limited information on the number of OSWI units that are currently complying with the existing OSWI standards, in part because the OSWI Federal plan has not been finalized, and states have neither developed state plans nor incorporated Federal plan requirements into state rules. Additionally, we have limited information from existing facilities that would definitively demonstrate their compliance. In the absence of a Federal plan and EPA-approved state plans in most states, EPA's primary baseline

measures the effects of this rule relative to no standards.

For the alternative baseline, EPA assumed (consistent with the proposed rule) that 10 percent of the population of facilities operating OSWI units are in compliance with the existing rule. Therefore, to develop baseline costs for facilities with units currently subject to the 2005 OSWI rules, we assumed that 10 percent have complied and continue to comply with testing, monitoring, and recordkeeping and reporting requirements. We included the initial cost of testing, parametric monitoring systems, and CO and O₂ CEMS because the current OSWI rule requires these systems, and estimated annual compliance costs comprised of annual testing, parametric monitoring, CO and O₂ CEMS monitoring, and associated recordkeeping and reporting. We have retained these assumptions for the alternative baseline in the final rule.

We estimated the alternative baseline total capital investment for the 10 percent of facilities assumed to be in compliance with the current OSWI rule to be \$6.30 million (2024\$). We estimated the alternative baseline annual costs for the 10 percent of facilities assumed to be in compliance with the current OSWI rules to be \$2.78 million (2024\$).²¹

The alternative baseline total capital investment for units currently subject to the CISWI standards to comply is estimated to be \$29.2 million (2024\$), and the annual compliance costs (for monitoring, recordkeeping, and reporting) are estimated to be \$11.0 million (2024\$).²²

The total alternative baseline costs for compliance for affected units in the current OSWI and CISWI rules taken together includes \$35.5 million (2024\$) in total capital investment and total annual costs of \$13.8 million (2024\$). Combined, this represents a present value of \$150 million (2024\$) and an equivalent annualized value of \$13 million (2024\$) at a 3 percent discount rate and a present value of \$130 million (2024\$) and an equivalent annualized

²¹ See Table 4 of the *Economic Impact Analysis for the Final Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units*, which is available in the docket (see Docket EPA-HQ-OAR-2003-0156) for this action, for more information on this cost calculation.

²² See Table 5 of the *Economic Impact Analysis for the Final Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units*, which is available in the docket (see Docket EPA-HQ-OAR-2003-0156) for this action, for more information on this cost calculation.

value of \$13 million (2024\$) at a 7 percent discount rate.²³

The facilities affected by the final rule include two VSMWC units with capacity greater than 10 TPD and 29 VSMWC units with capacities less than or equal to 10 TPD at 25 facilities. The final rule does not substantively change the compliance requirements for the VSMWC with capacity greater than 10 TPD and ACI facilities. Although costs are incurred by the 29 VSMWC units with capacities less than or equal to 10 TPD at 25 facilities, under a baseline that assumes the Congressional rider barring CISWI implementation does not continue, these costs are offset because these units would no longer be regulated under CISWI. However, under a baseline that assumes the Congressional rider will continue in perpetuity, these are new costs to the VSMWCs. The costs that would be incurred under the final rule for all units are for initial compliance, continuous compliance, and recordkeeping and reporting. The final rule revises the applicability of the 2005 rule to exclude units that meet the definition of a rudimentary combustion device, as discussed in section III.B of this preamble. The final rule also allows for owners and operators of VSMWC and IWI units with capacities less than or equal to 10 TPD (including units that were previously regulated under CISWI as SRIs) to reduce their initial and compliance costs using alternatives to initial and annual testing; the final rule costs for these units reflect the recordkeeping and reporting required to comply with waste characterization requirements (as discussed in section III.F.1 of this preamble). Further, the rule allows for electronic reporting. Benefits to industry of electronic reporting include reduced costs for creation and transmittal of reports.

Under the alternative baseline, the total initial cost of compliance (for recordkeeping and reporting) for the final OSWI standards is estimated to be \$158,000 (2024\$) and the annual compliance costs are estimated to be \$798,000 (\$393,000 for testing and \$405,000 recordkeeping and reporting) (2024\$).²⁴ Combined, this represents a

present value of \$8.9 million (2024\$) and an equivalent annualized value of \$720,000 (2024\$) at a 3 percent discount rate and a present value of \$7.2 million (2024\$) and an equivalent annualized value of \$730,000 (2024\$) at a 7 percent discount rate.²⁵

The total resulting cost impacts of the final rule in comparison to the alternative baseline is a one-time benefit of \$35.3 million (2024\$) in total capital investment and a reduction in total annual costs of \$13.0 million (2024\$).²⁶ Combined, this represents a present value of \$140 million (2024\$) and an equivalent annualized value of \$12 million (2024\$) at a 3 percent discount rate and a present value of \$120 million (2024\$) and an equivalent annualized value of \$13 million (2024\$) at a 7 percent discount rate.²⁷ The cost savings reflects a reduction in the number of facilities with applicable requirements under the OSWI standards, based on the changes to the applicability in this final rule (see section III.B of this preamble for additional information), and the regulation of 29 units under the OSWI rule instead of regulation under the CISWI rule as SRI units.

The cost calculations are detailed in the memorandum, *Costs and Impacts of the Final Other Solid Waste Incineration (OSWI) Units Rulemaking*, which is available in the docket (see Docket EPA-HQ-OAR-2003-0156) for this action.

The EPA provides an analysis of the compliance costs in present value and equivalent annual value form in the memorandum, *Economic Impact Analysis for the Final Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units*, which is available in the docket (see Docket EPA-HQ-OAR-2003-0156) for this action.

Relative to the alternative baseline, the final rule is burden reducing relative to the 2005 rule because it revises the applicability of the requirements of the

2005 rule to limit the OSWI standards that apply to units that meet the definition of a rudimentary combustion device, and allows for certain owners and operators of VSMWC and IWI units with capacities less than or equal to 10 TPD to reduce their initial and compliance costs using alternatives to initial and annual testing (*i.e.*, the substitute means of compliance demonstration and alternative waste characterization options that are described in section III.F.1 of this preamble).

However, as noted previously, there is uncertainty regarding the appropriate baseline for this action because the 2005 rule has yet to be fully implemented. As measured against EPA's primary baseline, some affected OSWI owner/operators may need to perform initial compliance actions and incur compliance costs on an ongoing basis. The EPA expects minimal economic impacts under the final rule because of the relatively small number of affected existing units and because the EPA does not anticipate affected new sources in the next 3 years. As a result, this action will incur *de minimis* regulatory costs. As discussed in the economic impact analysis associated with the 2005 rule, OSWI owner/operators may also substitute landfilling services for incineration rather than perform compliance actions associated with this rule (see Docket Item No. EPA-HQ-OAR-2003-0156-0101). However, the rate at which owner/operators of OSWI units substitute the use of landfilling services rather than incur the costs of OSWI compliance is highly uncertain. More information and details of this analysis is provided in the memorandum, *Economic Impact Analysis for the Proposed Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units*, which is available in the docket (see Docket EPA-HQ-OAR-2003-0156) for this action.

D. What are the benefits?

The final emission limits are unchanged relative to the 2005 standards for units with capacities greater than 10 TPD. The limits for the subcategories of VSMWC and IWI with capacities less than or equal to 10 TPD are less stringent than the corresponding limits for VSMWC and IWI with capacities greater than 10 TPD. However, the VSMWC and IWI with capacities less than or equal to 10 TPD operate intermittently with a relatively low stack gas flow rate, and so the actual emissions of pollutants are relatively low for these units. For

²³ See Table 8 of the *Economic Impact Analysis for the Final Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units*, which is available in the docket (see Docket EPA-HQ-OAR-2003-0156) for this action.

²⁴ See Table 6 of the *Economic Impact Analysis for the Final Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units*, which is available in the docket (see Docket EPA-HQ-OAR-2003-0156) for this action, for more information on this cost calculation.

²⁵ See Table 8 of the *Economic Impact Analysis for the Final Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units*, which is available in the docket (see Docket EPA-HQ-OAR-2003-0156) for this action.

²⁶ See Table 7 of the *Economic Impact Analysis for the Final Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units*, which is available in the docket (see Docket EPA-HQ-OAR-2003-0156) for this action, for more information on this cost calculation.

²⁷ See Table 8 of the *Economic Impact Analysis for the Final Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units*, which is available in the docket (see Docket EPA-HQ-OAR-2003-0156) for this action.

example, the EPA estimates that a representative VSMWC with capacity greater than 10 TPD may emit between 0.006 and 0.01 tons of Cd per year while meeting its limit of 18 µg/dscm, while the highest-emitting VSMWC with capacity less than or equal to 10 TPD emitting at the level of the standard (2,000 µg/dscm) would only emit 0.007 tons of Cd per year.

There are no changes relative to the 2005 standards to the requirements for the 29 ACI units and the 2 VSMWC with capacities greater than 10 TPD. Therefore, there are no emission reductions for them. The 29 units brought over from CISWI and now classified as VSMWC with capacities less than or equal to 10 TPD are assumed to be able to meet the emission limits in the final rulemaking for units less than or equal to 10 TPD capacity based on the test information provided and input provided by AOGA in their comments. Therefore, there are no emission reductions for these units.

Because the emission limits for the IWI and VSMWC with capacities less than or equal to 10 TPD are less stringent than the CISWI limits, movement of the units will result in forgone emissions reductions, *i.e.*, emissions reductions that would have occurred had the units stayed in CISWI and the CISWI emissions limits were implemented for them. Table 5 shows the forgone emissions reductions. The detailed emissions reductions calculations are documented in the memorandum *Final Reconsideration Baseline Emissions and Emissions Reductions Estimates for Existing CISWI Units* which is in the CISWI docket.

TABLE 5—ESTIMATED FORGONE EMISSIONS REDUCTIONS FROM MOVING 29 UNITS FROM CISWI TO OSWI *

Pollutant	Total forgone emissions reductions (tons/year)
Cadmium (Cd)	0.018
Carbon monoxide (CO)	2.6
Hydrogen chloride (HCl)	0
Lead (Pb)	0.116
Mercury (Hg)	0.00028
Nitrogen oxides (NO _x)	0
Particulate matter (PM)	8.56
Sulfur dioxide (SO ₂)	0
Dioxins/furans (PCDD/PCDF)	0
Total	11.3

* These forgone emissions reductions are relative to a baseline in which the Congressional rider pertaining to CISWI does not continue.

Although the EPA does not anticipate quantifiable reductions in emissions as a result of the final rule, this action includes improvements to the 2005 OSWI rule. Specifically, the final

amendments revise the OSWI standards such that they apply at all times, which we expect will minimize emissions during periods of SSM and protect public health and the environment. Additionally, the final amendments require electronic submittal of performance tests, deviation reports, and annual compliance reports, which will streamline reporting for affected sources and increase the usefulness of the data and improve data accessibility for the public. The EPA has developed CEDRI, which is located on EPA's Central Data Exchange (CDX), an application used by EPA programs and various stakeholders to manage environmental data transmitted to EPA. Reports are stored in the CDX and made available to report certifiers, preparers, and authorized EPA, regional, state, local, and Tribal reviewers immediately upon submission. Following a processing period, copies of the reports are also subsequently sent to EPA's WebFIRE where the reports are available for public access. Increasing the availability of facility emissions and reporting data allows for accountability of emitters to the public, and the information collected through improved electronic reporting will aid local, state, and national policymakers as they evaluate and consider future policy decisions. Benefits to industry of electronic reporting include the value of having more standardized data to present to the public to demonstrate appropriate environmental stewardship, and to better evaluate emission levels and identify opportunities to reduce emissions. Additionally, as discussed in section V.B of this preamble, we expect that certain units that previously were not meeting standards under CISWI will be able to meet the standards in this final OSWI rule; which could result in improved compliance and subsequent emissions reductions. In addition, relative to EPA's primary baseline, the standards in this final rule represent emissions reductions that the agency has not quantified or monetized.

VI. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at <https://www.epa.gov/laws-regulations/laws-and-executive-orders>.

A. Executive Orders 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is a significant regulatory action that was submitted to the Office of Management and Budget (OMB) for review. Any changes made during

Executive Order 12866 review have been documented in the docket. The EPA prepared an analysis of the potential costs and benefits associated with this action. This analysis, *Economic Impact Analysis for the Final Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units* is available in the docket. The economic impacts of this rulemaking are also discussed in section V.D of this preamble.

B. Executive Order 14192: Unleashing Prosperity Through Deregulation

This action is considered an Executive Order 14192 deregulatory *de minimis* action. Details on the estimated cost impacts are presented in the memorandum titled, *Economic Impact Analysis for the Final Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units*, which is available in the docket (see Docket EPA-HQ-OAR-2003-0156) for this action.

C. Paperwork Reduction Act (PRA)

The information collection activities in this action have been submitted for approval to OMB under the PRA as discussed for each subpart covered by this action in sections VI.B.1 and VI.B.2.

1. 40 CFR Part 60, Subpart EEEE

The information collection request (ICR) document that the EPA prepared has been assigned EPA ICR number 2163.09 and OMB control number 2060-0563. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here. The information collection requirements are not enforceable until OMB approves them.

We are finalizing amendments that revise 40 CFR part 60, subpart EEEE to revise applicability-related and definitional changes, remove the reporting requirements related to periods of SSM, and add electronic reporting requirements for submittal of certain reports and performance test results.

This information will be collected to assure compliance with 40 CFR part 60, subpart EEEE. The total estimated burden and cost for reporting and recordkeeping due to these amendments are presented here and are not intended to be cumulative estimates that include the burden associated with the requirements of the existing 40 CFR part 60, subpart EEEE. The ICR reflects both the total burden for subject units to comply with EEEE and the incremental

burden associated with the requirements of these final amendments.

Respondents/affected entities:

Owners and operators of other solid waste incineration units.

Respondent's obligation to respond:

Mandatory (40 CFR 60, subpart EEEE).

Estimated number of respondents: 2.

Frequency of response: Initially and annually.

Total estimated burden: 817 hours (per year), which includes 0 hours of incremental burden from the final revisions. Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: \$421,000 (per year), of which there are no incremental costs from the final revisions to 40 CFR part 60, subpart EEEE. These costs include annualized capital or operation and maintenance costs of \$306,000, of which there are no incremental annualized capital or operation and maintenance costs from the final revisions to 40 CFR part 60, subpart EEEE.

2. 40 CFR Part 60, Subpart FFFF

The ICR document that the EPA prepared has been assigned EPA ICR number 2164.09 and OMB control number 2060–0562. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here. The information collection requirements are not enforceable until OMB approves them.

We are finalizing amendments that revise 40 CFR part 60, subpart FFFF, to revise applicability-related and definitional changes, remove the reporting requirements related to periods of SSM, and add electronic reporting requirements for submittal of certain reports and performance test results.

This information will be collected to assure compliance with 40 CFR part 60, subpart FFFF. The total estimated burden and cost for reporting and recordkeeping due to these amendments are presented here and are not intended to be cumulative estimates that include the burden associated with the requirements of the existing 40 CFR part 60, subpart FFFF. The ICR reflects both the total burden anticipated for FFFF and the incremental burden associated with the requirements of these final amendments.

Respondents/affected entities:

Owners and operators of other solid waste incineration units.

Respondent's obligation to respond:

Mandatory (40 CFR 60, subpart FFFF).

Estimated number of respondents: 54.

Frequency of response: Initially and annually.

Total estimated burden: 2,390 hours (per year), which includes 1,824 hours of incremental burden from the final revisions. Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: \$424,000 (per year), of which includes \$257,000 in incremental costs from these final revisions to 40 CFR part 60, subpart FFFF. These costs include annualized capital or operation and maintenance costs of \$87,000, of which there are no incremental annualized capital or operation and maintenance costs from the final revisions to 40 CFR part 60, subpart FFFF.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9. When OMB approves this ICR, the Agency will announce that approval in the **Federal Register** and publish a technical amendment to 40 CFR part 9 to display the OMB control number for the approved information collection activities in this final rule.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (RFA). In making this determination, the EPA concludes that the impact of concern for this rule is any significant adverse economic impact on small entities and that the agency is certifying that this rule will not have a significant economic impact on a substantial number of small entities because the rule relieves regulatory burden on the small entities subject to the rule.

The small entities that may be subject to the requirements of this action are small businesses, small government jurisdictions, and small nonprofits. Because we do not have an accurate inventory of potential OSWI units, there may be additional units at small entities that could be impacted by this final rule.

However, those impacts are likely to be minimal because this final rule will not impose any requirements on combustion units that meet the definition of a rudimentary combustion device (units with capacities less than or equal to 10 TPD without one or more of the elements listed in section III.B of this preamble). Many of these units are located at small entities and therefore would not be subject to the final rules. Additionally, this rule allows for owners and operators of VSMWC and IWI units with capacities less than or

equal to 10 TPD to reduce their initial and annual compliance costs using alternatives to initial and annual testing (as discussed in section III.F.1 of this preamble), which further reduces the compliance costs for small entities.

Of the 174 OSWI units in our dataset, 69 units (about 40 percent) are owned by small entities. Of the \$13 million in annualized regulatory cost savings, about \$3 million (or 23 percent) of the savings are estimated to accrue to small entities. The difference between these percentages is primarily due to the fact that small entities own a disproportionate number of ACI units (23 out of 29 units) which are not expected to experience a regulatory cost change under this rule. As described in section II.B, the 2024 ACI Rule removed title V permitting requirements for ACIs that only burn wood waste, clean lumber, yard waste, or a mixture of those, and are not located at title V major sources or subject to title V for other reasons. Small entities owning OSWI-affected ACI units will receive a reduction in compliance expenditures under that rule. Overall, this final rule will reduce regulatory requirements for affected units relative to requirements faced before this final rulemaking. We have therefore concluded that this action will relieve regulatory burden for all directly regulated small entities.

Details of this analysis are presented in the memorandum titled, *Economic Impact Analysis for the Final Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units*, which is available in the docket (see Docket EPA–HQ–OAR–2003–0156) for this action.

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. While this action creates an enforceable duty on the private sector, the cost does not exceed \$100 million or more.

F. Executive Order 13132: Federalism

This action 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. However, the EPA recognizes that states will have an interest in this action and any future revisions to associated requirements relating to state implementation plans.

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

This action does not have Tribal implications as specified in Executive Order 13175. It will neither impose direct compliance costs on federally recognized Tribal governments nor preempt Tribal law. Thus, Executive Order 13175 does not apply to this action.

The EPA is not aware of any OSWI owned or operated by Indian Tribal governments at the time of the publication of this document. Because we do not have an accurate inventory of potential OSWI units, there may be additional units owned or operated by Indian Tribal governments that could be impacted.

Consistent with the EPA Policy on Consultation and Coordination with Indian Tribes, the EPA consulted with Tribal officials under the EPA Policy on Consultation and Coordination with Indian Tribes early in the process of developing this regulation to allow for meaningful and timely input into its development. The EPA conducted multiple outreach activities such as Tribal partnership calls, webinars, and offers for government-to-government consultation with potentially impacted Tribes and other Tribes as requested. A summary of this consultation is provided in section II.C of this preamble.

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

Executive Order 13045 directs federal agencies to include an evaluation of the health and safety effects of the planned regulation on children in federal health and safety standards and explain why the regulation is preferable to potentially effective and reasonably feasible alternatives. This action is not subject to Executive Order 13045 because it is not a significant regulatory action under section 3(f)(1) of Executive Order 12866, and because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. The emission limits for most OSWI units remain unaffected by this rulemaking. However, the emission limits for VSMWC and IWI with capacity less than or equal to 10 TPD have been added to reflect actual emissions from units of those size, and the applicability of the OSWI rule has been updated such that SRIs which were previously regulated under CISWI will now be regulated under OSWI. SRIs are not currently meeting the emission

limits under CISWI, as explained in Section IV.A of this preamble. SRIs will be required to meet OSWI limits under an applicable state or Federal plan. All units are expected to be able to meet the OSWI limits. Because the SRIs are not currently required to meet the CISWI emission limits and are expected to be able to meet the OSWI limits, the EPA does not anticipate any changes in emissions from these units (see Section V.B. for more discussion). Since the EPA estimates no changes in actual emissions based on this rulemaking, the EPA does not believe there are disproportionate risks to children caused by this action.

However, the EPA's *Policy on Children's Health* applies to this action. This action is consistent with the EPA's *Policy on Children's Health* because the new technology-based standards provide a maximum level of emission that is implementable for all OSWI units. As described by the 2020 proposal, the EPA also considered more stringent standards in the context of beyond-the-floor regulatory options, but determined that requiring additional controls on VSMWC or IWI with capacity less than or equal to 10 TPD is infeasible or cost prohibitive.²⁸ As explained in Section III.C of this preamble, the emissions from the VSMWC or IWI with capacity less than or equal to 10 TPD are relatively small on an annual basis, and these units are primarily located in remote areas with low populations, including populations of children.

I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not a "significant energy action" because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. This action includes defining and setting emission limits for new subcategories; applicability-related and definitional changes; changes to the startup, shutdown, and malfunction (SSM) provisions; and the testing, monitoring, recordkeeping, and reporting requirements. This does not impact energy supply, distribution, or use.

J. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR Part 51

This action involves technical standards. As discussed in the proposal preamble (85 FR 54178; August 31, 2020), the EPA conducted searches for

the OSWI standards through the Enhanced National Standards Systems Network Database managed by the American National Standards Institute (ANSI). We also contacted voluntary consensus standards (VCS) organizations and accessed and searched their databases. During the EPA's VCS search, if the title or abstract (if provided) of the VCS described technical sampling and analytical procedures that are similar to the EPA's reference method, the EPA reviewed the VCS as a potential equivalent method.

The EPA incorporates by reference VCS, ASTM D7520–16, "Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere" as an acceptable alternative to EPA Method 9. This test method describes the procedures to determine the opacity of a plume, using digital imagery and associated hardware and software. The plume is caused by particulate matter emitted from a stationary point source in the outdoor ambient environment. The opacity of emissions is determined by the application of a Digital Camera Opacity Technique (DCOT) that consists of a digital still camera, analysis software, and the output function's content to obtain and interpret digital images to determine and report plume opacity. This method is suitable to determine the opacity of plumes from zero percent to one hundred percent. Conditions that shall be considered when using this method to obtain the digital image of the plume include the plume's background, the existence of condensed water in the plume, orientation of the digital still camera to the plume and the sun. This standard describes the procedures to certify the DCOT, hardware, software, and method to determine the opacity of the plumes.

This method is available for purchase from ASTM International, 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428–2959, (800) 262–1373, <http://www.astm.org/>. The EPA's approval of this method as an alternative method does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software, and operator in accordance with ASTM D7520–16 is on the facility, DCOT operator, and DCOT vendor. The standard is available to everyone at a cost determined by ASTM (\$119). ASTM also offers memberships or subscriptions for reduced costs. The cost of obtaining this method is not a significant financial burden, making the method reasonably available.

²⁸ 85 FR 54186 (August 31, 2020).

The EPA incorporates by reference VCS, American National Standards Institute/American Society of Mechanical Engineers (ASME/ANSI) PTC 19.10–1981 Part 10, “Flue and Exhaust Gas Analyses” as an acceptable alternative to EPA Methods 3B, 6, and 7 (manual portion only, not the instrumental procedures). This standard was previously incorporated into the 2005 OSWI final rule. This standard determines quantitatively the gaseous constituents of exhausts resulting from stationary combustion sources. The gases covered in ASME/ANSI PTC 19.10–1981 are O₂, carbon dioxide (CO₂), CO, SO₂, sulfur trioxide (SO₃), nitric oxide (NO), nitrogen dioxide (NO₂), hydrogen sulfide (H₂S), and hydrocarbons. However, the use in this rule is only applicable to O₂, CO₂, SO₂, NO, and NO₂. This standard may be obtained from the American National Standards Institute (ANSI), 1899 L Street NW, 11th Floor, Washington, DC 20036 and the American Society of Mechanical Engineers (ASME), Two Park Avenue, New York, NY 10016–5990. See <https://www.ansi.org> and <https://www.asme.org>. The standard is available to everyone at a cost determined by ASME/ANSI (\$80). ASME/ANSI also offer memberships or subscriptions for reduced costs. The cost of obtaining this method is not a significant financial burden, making the method reasonably available.

The EPA incorporates by reference an EPA guidance document, Office of Air Quality Planning and Standards (OAQPS) Fabric Filter Bag Leak Detection Guidance, EPA–454/R–98–015, September 1997, for its guidance on the use of fabric filter air pollution control devices and monitoring system descriptions, selection, installation, set up, adjustment, operation, and quality assurance procedures. In conjunction with the bag leak detection system manufacturer’s written specifications, this guidance helps to ensure proper installation, operation, and maintenance of these systems. This guidance may be obtained from the U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460, (202) 272–0167, <https://www.epa.gov> or <https://www.epa.gov/sites/default/files/2021-01/documents/bagleakddetectionguidance.pdf>. The EPA determined that this standard is reasonably available because it is freely available from the EPA.

While the EPA also identified 26 other VCS as being potentially applicable, the Agency decided not to use them because those methods are impractical as alternatives due to lack of equivalency, documentation, or

validation data, or because of other important technical and policy considerations. The search and review results have been documented and are in the memorandum, *Voluntary Consensus Standard Results for Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units; Proposed Rule*, which is available in the docket (see Docket EPA–HQ–OAR–2003–0156) for this rulemaking.

K. Congressional Review Act (CRA)

This action is subject to the Congressional Review Act (CRA), and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 60

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

Lee Zeldin,
Administrator.

For the reasons set forth in the preamble, the Environmental Protection Agency amends part 60 of title 40, chapter I, of the Code of Federal Regulations as follows:

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

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

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

Subpart A—General Provisions

- 2. Amend § 60.17 by revising paragraphs (g)(14), (h)(215), and (k)(3) to read as follows:

§ 60.17 Incorporations by reference.

* * * * *

(g) * * *

(14) ASME/ANSI PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], Issued August 31, 1981 IBR approved for §§ 60.56c(b); 60.63(f); 60.106(e); 60.104a(d), (h), (i), and (j); 60.105a(b), (d), (f), and (g); 60.106a(a); 60.107a(a), (c), (d), and e; 60.275(e); 60.275a(e); 60.275b(e); 60.285a(f); 60.396a(a); 60.614a(b); 60.664a(b); 60.704(b); 60.704a(b); 60.2145(s) and (t); 60.2710(s) and (t); 60.2922(e); 60.2940(c); tables 1, 1a, 1b, and 3 to subpart EEEE; §§ 60.3027(e); 60.3039(c); tables 2, 2a,

and 4 to subpart FFFF; table 2 to subpart JJJJ; §§ 60.4415(a); 60.4900(b); tables 1 and 2 to subpart LLLL; § 60.5220(b); tables 2 and 3 to subpart MMMM; §§ 60.5406(c); 60.5413(b); 60.5406a(c); 60.5407a(g); 60.5413a(b) and (d); 60.5406b(c); 60.5407b(g); 60.5413b(b) and (d); 60.5413c(b) and (d).

* * * * *

(h) * * *

(215) ASTM D7520–16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, approved April 1, 2016; IBR approved for §§ 60.123(c); 60.123a(c); 60.271(k); 60.272(a) and (b); 60.273(c) and (d); 60.274(i); 60.275(e); 60.276(c); 60.271a; 60.272a(a) and (b); 60.273a(c) and (d); 60.274a(h); 60.275a(e); 60.276a(f); 60.271b; 60.272b(a) and (b); 60.273b(c) and (d); 60.274b(h); 60.275b(e); 60.276b(f); 60.374a(d); 60.2972(a); tables 1, 1a, and 1b to subpart EEEE; § 60.3067(a); tables 2 and 2a to subpart FFFF.

* * * * *

(k) * * *

(3) EPA–454/R–98–015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997; IBR approved for §§ 60.124(f); 60.124a(f); 60.273(e); 60.273a(e); 60.273b(e); 60.373a(b); 60.2145(r); 60.2710(r); 60.2944(c), 60.3043(c), 60.4880(b); 60.5200(b). (Available from: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000D5T6.pdf>).

* * * * *

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

- 3. Amend § 60.2020 by adding paragraph (k) to read as follows:

§ 60.2020 What combustion units are exempt from this subpart?

* * * * *

(k) *Small remote incinerators.*

Incineration units located in the State of Alaska are not subject to this subpart as specified in the Consolidated Appropriations Act of 2024, H.R. 4366, section 432. For small, remote incinerators that met the requirements of 40 CFR 60.2015(a)(3) as of December 29, 2025, the unit remains subject to this subpart until the unit becomes subject to the requirements of an approved state plan or Federal plan that implements subpart FFFF of this part (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units).

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

- 4. Amend § 60.2555 by adding paragraph (k) to read as follows:

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

* * * * *

(k) *Small, remote incinerators.* Incineration units located in the State of Alaska are not subject to this subpart as specified in the Consolidated Appropriations Act of 2024, H.R. 4366, section 432. For small, remote incinerators that met the requirements of 40 CFR 60.2550(a) as of December 29, 2025, the unit remains subject to this subpart until the unit becomes subject to the requirements of an approved state plan or Federal plan that implements subpart FFFF of this part (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units).

Subpart EEEE—Standards of Performance for Other Solid Waste Incineration Units

- 5. Revise the heading of subpart EEEE of part 60 to read as set out above.

- 6. Revise and republish § 60.2881 to read as follows:

§ 60.2881 When does this subpart become effective?

This subpart takes effect December 29, 2025. Some of the requirements in this subpart apply to planning the incineration unit and must be completed even before construction is initiated on the unit (*i.e.*, the preconstruction requirements in §§ 60.2894 and 60.2895). Other requirements such as the emission limitations and operating limits apply when the unit begins operation.

- 7. Amend § 60.2885 by revising paragraphs (a) and (b), and adding paragraph (d) to read as follows:

§ 60.2885 Does this subpart apply to my incineration unit?

* * * * *

(a) Your incineration unit is a new incineration unit as defined in § 60.2886, except as specified in paragraph (d) of this section.

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

* * * * *

(d) This subpart does not apply to your incineration unit if it is a rudimentary combustion device as defined in § 60.2977.

- 8. In § 60.2886 revise and republish paragraph (a) to read as follows:

§ 60.2886 What is a new incineration unit?

(a) A new incineration unit is an incineration unit subject to this subpart that meets any of the criteria specified in paragraphs (a)(1) or (2) of this section, except as specified in paragraph (a)(3) of this section.

(1) Commenced construction after August 31, 2020.

(2) Commenced reconstruction or modification on or after December 29, 2025.

(3) If your incineration unit is a very small municipal waste combustion unit or institutional waste incineration unit and commenced construction, reconstruction, or modification on or before August 31, 2020, or reconstruction or modification on or before December 29, 2025, and you must meet one of the following:

(i) If your incineration unit commenced construction after December 9, 2004, or commenced reconstruction or modification after June 16, 2006, and met the applicability of paragraph (a)(1) or (a)(2) of this section before December 29, 2025, your unit is considered a new incineration unit and remains subject to the emission limitations of table 1 and applicable requirements of this subpart until the unit becomes subject to the requirements of an approved state plan or federal plan that implements subpart FFFF of this part (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units), except as provided in paragraph (a)(3)(iii) of this section.

(ii) If your incineration unit commenced construction on or before December 9, 2004, or commenced reconstruction or modification on or before June 16, 2006, and did not meet the applicability of paragraph (a)(1) or (a)(2) of this section as of December 29, 2025, then your unit is considered an existing incineration unit and is subject to the requirements of an approved state plan or federal plan that implements subpart FFFF of this part (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units), except as provided in paragraph (a)(3)(iii) of this section.

(iii) If you met the applicability of § 60.2015(a)(3) or § 40 CFR 60.2550(a) as of December 29, 2025, then your unit is considered a commercial and industrial solid waste incineration unit and remains subject to the applicable

requirements, until the unit becomes subject to the requirements of an approved state plan or federal plan that implements subpart FFFF of this part (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units).

* * * * *

- 9. Amend § 60.2887 by revising paragraphs (b)(1), (b)(3), and paragraph (q) introductory text to read as follows:

§ 60.2887 What combustion units are excluded from this subpart?

* * * * *

(b) * * *

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

* * * * *

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

* * * * *

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

* * * * *

- 10. Amend § 60.2888 by revising paragraph (a) and paragraph (b) introductory text to read as follows:

§ 60.2888 Are air curtain incinerators regulated under this subpart?

(a) Air curtain incinerators that burn less than 35 tons per day of municipal solid waste or air curtain incinerators located at institutional facilities burning any amount of institutional waste generated at that facility are incineration units subject to all requirements of this subpart, including the emission limitations specified in tables 1, 1a, and 1b to this subpart.

(b) Air curtain incinerators that burn less than 35 tons per day and burn only the materials listed in paragraphs (b)(1) through (4) of this section collected from the general public and from residential, commercial, institutional, and industrial sources; or, air curtain incinerators located at institutional facilities that burn only the materials listed in paragraphs (b)(1) through (4) of this section generated at that facility, are required to meet only the requirements in §§ 60.2970 through 60.2973 and are exempt from all other requirements of this subpart.

* * * * *

- 11. Revise § 60.2889 to read as follows:

§ 60.2889 Who implements and enforces this subpart?

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

(b) In delegating implementation and enforcement authority of this subpart to a state, local, or Tribal authority, the authorities listed in paragraphs (b)(1) through (9) of this section are retained by EPA and are not transferred to the state, local, or Tribal authority.

(1) The authority to approve alternatives to the emission limitations in tables 1, 1a, and 1b to this subpart and operating limits established under § 60.2916 and table 2 to this subpart.

(2) The authority to approve petitions for specific operating limits in accordance with the requirements in § 60.2917.

(3) The authority of the Administrator to receive and grant petitions under § 60.8(b)(3) to approve major alternatives to test methods in § 60.2922.

(4) The authority to approve major alternatives to monitoring in §§ 60.2939 through 60.2945.

(5) The authority to approve major alternatives to recordkeeping and reporting in §§ 60.2949 through 60.2962.

(6) The authority to receive the required notices and to approve continued operation in connection with the status report requirements in § 60.2911(c)(2).

(7) The authority of the Administrator to receive and grant petitions under § 60.11(e)(6) through (8) to adjust opacity standards and establish opacity standards in accordance with alternative opacity emission limits in § 60.2915 and §§ 60.2971 through 60.2973.

(8) The authority of the Administrator under § 60.8(b)(4) to waive performance test requirements and § 60.8(b)(5) to approve shorter sampling times or smaller sample volumes.

(9) The authority to approve an alternative to any electronic reporting to the EPA required by this subpart.

■ 12. Amend § 60.2890 by revising the introductory text and adding paragraphs (j) and (k) to read as follows:

§ 60.2890 How are these new source performance standards structured?

These new source performance standards contain 11 major components, as follows:

* * * * *

(j) Definitions.

(k) Tables.

■ 13. Revise § 60.2894 to read as follows:

§ 60.2894 Who must prepare a siting analysis?

You must prepare a siting analysis if you commence construction after August 31, 2020, or if you commence reconstruction or modification on or after December 29, 2025.

■ 14. Amend § 60.2895 by revising paragraphs (a) and (b) to read as follows:

§ 60.2895 What is a siting analysis?

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

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

* * * * *

■ 15. Amend § 60.2905 by revising paragraph (b), paragraph (c) introductory text, and paragraphs (c)(1)(iv), (viii), and (x) to read as follows:

§ 60.2905 What are the operator training and qualification requirements?

* * * * *

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

(c) Training must be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in paragraphs (c)(1) through (3) of this section:

(1) * * *

(iv) Combustion controls and monitoring, including good combustion practices and waste characterization procedures.

* * * * *

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

* * * * *

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

* * * * *

■ 16. Revise § 60.2906 to read as follows:

§ 60.2906 When must the operator training course be completed?

The operator training course must be completed by the latest of the dates specified in paragraphs (a) through (d) of this section.

(a) Six months after your OSWI unit startup date.

(b) December 29, 2025.

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

■ 17. Revise § 60.2908(d) to read as follows:

§ 60.2908 How do I maintain my operator qualification?

* * * * *

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

* * * * *

■ 18. Amend § 60.2910 by:

■ a. Revising paragraph (a) introductory text and paragraph (a)(4);

■ b. Adding paragraph (a)(10); and

■ c. Revising paragraph (c)(2).

The revisions and addition read as follows:

§ 60.2910 What site-specific documentation is required?

(a) Documentation must be available at the facility and readily accessible for all OSWI unit operators that addresses the ten topics described in paragraphs (a)(1) through (10) of this section. You must maintain this information and the training records required by paragraph (c) of this section in a manner that they can be readily accessed and are suitable for inspection upon request.

* * * * *

(4) Procedures for maintaining good combustion practices, including proper combustion air supply levels.

* * * * *

(10) Procedures for establishing initial and continuous compliance, including but not limited to, procedures to determine waste characterization.

* * * * *

(c) * * *

(2) Records showing the names of the OSWI unit operators who have completed the operator training requirements under § 60.2905, met the criteria for qualification under § 60.2907, and maintained or renewed their qualification under § 60.2908 or § 60.2909. Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

* * * * *

■ 19. Amend § 60.2911 by revising the introductory paragraph to read as follows:

§ 60.2911 What if all the qualified operators are temporarily not accessible?

For each batch OSWI unit, a qualified operator must always be accessible when the unit is operating. For each continuous OSWI unit or intermittent OSWI unit, if all qualified operators are temporarily not accessible (*i.e.*, not at the facility and not able to be at the facility within 1 hour), you must meet one of the three criteria specified in paragraphs (a) through (c) of this section, depending on the length of time that a qualified operator is not accessible.

* * * * *

■ 20. Revise § 60.2915 to read as follows:

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

For OSWI units with initial startup before June 30, 2025, you must meet the emission limitations specified in table 1 to this subpart 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup. For OSWI units with capacities greater than 10 tons per day and with initial startup on or after June 30, 2025, you must meet the emissions limitations specified in table 1a to this subpart 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup. For very small municipal waste combustion units and institutional waste incineration units with capacities less than or equal to 10 tons per day with initial startup on or after June 30, 2025, you must meet the emission limitations specified in table 1b to this subpart 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.

■ 21. Revise § 60.2916 to read as follows:

§ 60.2916 What operating limits must I meet and by when?

You must comply with the requirements in paragraphs (a) through (h) of this section, as applicable. If you own or operate a very small municipal waste combustion unit or institutional waste incineration unit using the substitute means of compliance demonstration under § 60.2929, the references in this section to the most recent performance test demonstrating compliance are not applicable and instead, refer to the limits established during the representative performance test identified in the information submitted as specified in § 60.2929(b).

(a) You must establish a maximum charge rate, calculated using the procedures in paragraph (a)(1) or (2) of this section, as appropriate.

(1) For continuous and intermittent units, maximum charge rate is the average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(2) For batch units, maximum charge rate is the charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(b) You must establish a minimum combustion chamber operating temperature equal to the lowest 1-hour average combustion chamber operating temperature measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(c) If you use a wet scrubber to comply with the emission limitations, you must establish operating limits for the operating parameters as described in paragraphs (c)(1) through (3) of this section.

(1) Minimum pressure drop across the wet scrubber, which is calculated as the lowest 1-hour average pressure drop across the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations; or minimum amperage to the wet scrubber, which is calculated as the average amperage to the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(2) Minimum scrubber liquor flow rate, which is calculated as the lowest 1-hour average liquor flow rate at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(3) Minimum scrubber liquor pH, which is calculated as the lowest 1-hour

average liquor pH at the outlet to the wet scrubber measured during the most recent performance test demonstrating compliance with the hydrogen chloride and sulfur dioxide emission limitations.

(d) If you use a dry scrubber to comply with the emission limitations, you must measure the injection rate of each sorbent during the performance test. The minimum operating limit for the injection rate of each sorbent is calculated as the lowest 1-hour average injection rate for each sorbent measured during the most recent performance test demonstrating compliance with the hydrogen chloride emission limitations.

(e) If you use an electrostatic precipitator to comply with the emission limitations, you must measure the (secondary) voltage and amperage of the electrostatic precipitator collection plates during the particulate matter performance test. Calculate the average electric power value (secondary voltage × secondary current = secondary electric power) for each test run. The minimum operating limit for the electrostatic precipitator is calculated as the lowest 1-hour average secondary electric power measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(f) If you use a fabric filter to comply with the emission limitations, you must operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period. Calculate the alarm time (*i.e.*, time that the alarm sounds) as specified in paragraphs (f)(1) and (2) of this section.

(1) If inspection of the fabric filter demonstrates that no corrective action is required, the alarm duration is not counted in the alarm time calculation.

(2) If corrective action is required and you take less than an hour to initiate corrective action, the alarm time is counted as 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action.

(g) If you own or operate a very small municipal waste combustion unit or institutional waste incineration unit with capacity less than or equal to 10 tons per day and you demonstrate continuous compliance according to § 60.2932(d), you must establish the amount of waste burned in each waste category as a percentage of total waste burned on a mass basis. These percentages are your waste profile and must be based on the categories of waste fed to the incinerator (*e.g.*, food waste,

paper waste, wood waste) during the most recent performance test.

(h) You must meet the operating limits established during the initial or representative performance test no later than the date specified in paragraph (h)(1) or (2) of this section, as applicable.

(1) For each OSWI unit with a capacity greater than 10 tons per day or for each very small municipal waste combustion unit or institutional waste incineration unit with a capacity less than or equal to 10 tons per day for which you conduct an initial performance test under § 60.2927(a), within 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.

(2) For each very small municipal waste combustion unit or institutional waste incineration unit for which you use the substitute means of compliance demonstration under § 60.2929, by the date you submit to the Administrator the information required in § 60.2929(b).

■ 22. Amend § 60.2917 by revising the section heading and the introductory text to read as follows:

§ 60.2917 What if I do not use a wet scrubber, dry scrubber, electrostatic precipitator, or fabric filter to comply with the emission limitations?

If you use an air pollution control device other than a wet scrubber, dry scrubber, electrostatic precipitator, or fabric filter to comply with the emission limitations under § 60.2915, you must petition the EPA Administrator for specific operating limits to be established during the performance test and then continuously monitored thereafter. Additionally, unless you demonstrate continuous compliance according to § 60.2932(d), if you limit emissions in some manner other than an add-on control device to comply with the emission limitations under § 60.2915, such as by material balance, then you must submit a petition for approval of your means of limiting your emissions. You must submit the petition at least 60 days before the performance test is scheduled to begin and not conduct the initial performance test until after the petition has been approved by the EPA. Your petition must include the five items listed in paragraphs (a) through (e) of this section.

* * * * *

§ 60.2918 [Removed and reserved].

■ 23. Remove and reserve § 60.2918.

■ 24. Revise and republish § 60.2922 to read as follows:

§ 60.2922 How do I conduct the initial and annual performance test?

(a) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations.

(b) All performance tests must be conducted using the methods in tables 1, 1a, and 1b to this subpart.

(c) All performance tests must be conducted using the minimum run duration specified in tables 1, 1a, and 1b to this subpart.

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

(e) EPA Method 3A or 3B of Appendix A to this part or ASME/ANSI PTC 19.10–1981 (incorporated by reference, see § 60.17), in lieu of EPA Method 3B, must be used for gas composition analysis, including measurement of oxygen concentration. EPA Method 3A or 3B of Appendix A to this part or ASME/ANSI PTC 19.10–1981 must be used simultaneously with each method.

(f) All pollutant concentrations, except for opacity, must be adjusted to 7 percent oxygen using Equation 1 to § 60.2975.

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

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

(i) Assemble the sampling train(s) and conduct a conditioning run by collecting between 14 liters per minute (0.5 cubic feet per minute) and 30 liters per minute (1.0 cubic feet per minute) of gas over a one-hour period. Follow the sampling procedures outlined in section 8.1.5 of EPA Method 26A of Appendix A to this part. For the conditioning run, water can be used as the impinger solution.

(ii) Remove the impingers from the sampling train and replace with a fresh impinger train for the sampling run, leaving the probe and filter (and cyclone, if used) in position. Do not recover the filter or rinse the probe before the first run. Thoroughly rinse the impingers used in the preconditioning run with deionized water and discard these rinses.

(iii) The probe and filter assembly are conditioned by the stack gas and are not recovered or cleaned until the end of testing.

(2) For the duration of sampling, a temperature around the probe and filter (and cyclone, if used) between 120 °C

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

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

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

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

■ 25. Revise § 60.2923 to read as follows:

§ 60.2923 How are the performance test data used?

You use results of performance tests to demonstrate compliance with the emission limitations in tables 1, 1a, and 1b to this subpart.

■ 26. Revise § 60.2927 to read as follows:

§ 60.2927 How do I demonstrate initial compliance with the emission limitations and establish the operating limits?

(a) Except as provided in paragraph (b) of this section, you must conduct an initial performance test, as required under § 60.8, to determine compliance with the emission limitations in table 1, 1a, or 1b to this subpart and to establish operating limits using the procedures in § 60.2916 or § 60.2917. The initial performance test must be conducted using the test methods listed in table 1, 1a, or 1b to this subpart and the procedures in § 60.2922. In the event of any conflict between § 60.8 and the provisions of this subpart, the provisions of this subpart shall apply.

(b) For very small municipal waste combustion units and institutional waste incineration units with a capacity less than or equal to 10 tons per day, you must demonstrate initial compliance according to paragraph (a) of this section, unless you comply with the requirements for the substitute means of compliance demonstration in § 60.2929.

(c) For each OSWI unit with a capacity greater than 10 tons per day, as an alternative to conducting a performance test under paragraph (a) of this section for carbon monoxide, you may use a 12-hour rolling average of the 1-hour arithmetic average CEMS data to determine compliance with the emission limitations in tables 1, 1a, and 1b to this subpart. The initial performance evaluation required by § 60.2940(b) must be conducted prior to collecting CEMS data that will be used for the initial compliance demonstration.

■ 27. Revise § 60.2928 to read as follows:

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

The initial performance test must be conducted within 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup. For units which start-up between August 31, 2020, and December 29, 2025, the initial performance test must be conducted within 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup, or by February 25, 2026, whichever date is later.

■ 28. Under the center heading “Initial Compliance Requirements”, add § 60.2929 to read as follows:

§ 60.2929 What are the substitute means of compliance demonstration requirements for very small municipal waste combustion units and institutional waste incineration units with capacities less than or equal to 10 tons per day?

Instead of conducting the initial performance test in § 60.2927(a), very small municipal waste combustion units and institutional waste incineration units with capacities less than or equal to 10 tons per day may demonstrate initial compliance according to the requirements in paragraphs (a) through (d) of this section.

(a) You must submit the information specified in paragraph (a)(1) of this section and comply with the requirements of paragraph (a)(2) of this section for each very small municipal waste combustion unit or institutional waste incineration unit for which you are using a substitute means of compliance demonstration.

(1) On or before December 29, 2025 or within 60 days of startup, whichever is later, you must submit a written notification to the Administrator via CEDRI, which can be accessed through the EPA’s Central Data Exchange (CDX) (<https://cdx.epa.gov/>), that you intend to use the substitute means of compliance demonstration. Your submittal must include information on the design and operation of the OSWI unit, including the information in paragraphs (a)(1)(i) through (iv) of this section. Do not use CEDRI to submit information you claim as confidential business information (CBI). If you wish to assert a CBI claim, submit the information listed below following the procedures in paragraph (b)(3) of this section.

(i) Manufacturer, make, and model of the unit.

(ii) Type of unit (e.g., burn barrel, incinerator with secondary chamber, etc.).

(iii) Capacity of the unit.

(iv) The anticipated waste profile, as defined in § 60.2977.

(2) Beginning on December 29, 2025 or upon initial startup, whichever is later, you must collect the data in paragraphs (a)(2)(i) through (vii) of this section. You must continue to collect the data in paragraphs (a)(2)(i) through (vii) of this section until you meet the requirements of paragraph (b) of this section.

(i) Identity and weight of each waste type (e.g., lbs of paper waste, food waste, wood or yard waste) on a weekly total basis for the date range the information is collected.

(ii) Identity and quantities (e.g., flow rate or percentage of operating time) of supplemental fuels burned on a weekly total basis for the date range the information is collected.

(iii) Percentage of total waste burned for each waste type on a weekly average basis for the date range the information is collected.

(iv) Temperature indicative of the combustion chamber and description of where temperature is measured. Record this information on a 3-hour rolling average basis for the date range the information is collected.

(v) Hours operated per day for the date range the information is collected.

(vi) Charge rate each day in tons per day for the date range the information is collected.

(vii) Operating parameter data for any air pollution control devices. For wet scrubbers, include pressure drop across the scrubber or amperage to the scrubber, scrubber liquor inlet flow rate, and scrubber liquor pH at the outlet of the scrubber. For dry scrubbers, include injection rate of each sorbent used. For electrostatic precipitators, include the secondary voltage, secondary amperage, and secondary power. Record this information on a 3-hour rolling average basis for the date range the information is collected.

(b) On or before the latest of March 30, 2027; 60 days after the very small municipal waste combustion unit or institutional waste incineration unit reaches the charge rate at which it will operate; or 180 days after initial startup, you must identify the results of a performance test in the EPA’s WebFIRE database that is representative for your very small municipal waste combustion unit or institutional waste incineration unit using the criteria in paragraphs (b)(2)(i) through (viii) of this section and submit the information in paragraphs (b)(1) and (2) of this section. You must submit the information following the procedure in paragraph (b)(3) of this section. The performance test may be

any test that meets the requirements in paragraph (c) of this section, regardless of location, that is representative of your OSWI unit.

(1) Identify the representative performance test used to demonstrate initial compliance with each very small municipal waste combustion unit or institutional waste incineration unit by submitting the information in paragraphs (b)(1)(i) through (vi) of this section as provided in the EPA’s WebFIRE database for the performance test:

(i) Organization.

(ii) Facility.

(iii) City.

(iv) State.

(v) County.

(vi) Submission date.

(2) Describe how the test is representative for your OSWI unit, based on the following criteria, using the data submitted as specified in paragraph (a)(1) of this section and collected as specified in paragraph (a)(2) of this section:

(i) Unit design, including type of unit and any associated air pollution control devices.

(ii) Charge rate.

(iii) Type of operation (batch, continuous, intermittent).

(iv) Combustion temperature and location of temperature measurement.

(v) Type(s) of waste burned.

(vi) Waste profile, as defined in § 60.2977.

(vii) Type and amount of supplemental fuels.

(viii) Similarity of air pollution control devices and operation of the air pollution control devices, if the performance test was conducted on a unit with an air pollution control device.

(3) You must submit the information required in paragraphs (b)(1) and (2) of this section via CEDRI, which can be accessed through the EPA’s Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. If you wish to assert a CBI claim, submit the information, including information claimed to be CBI, to the EPA following the procedures in paragraphs (b)(3)(i) and (ii) of this section. Clearly mark the part or all of the information that you claim as CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of

submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(i) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqps_cbi@epa.gov, and as described above, should include clear CBI markings and be flagged to the attention of the Other Solid Waste Incinerator Units Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqps_cbi@epa.gov to request a file transfer link.

(ii) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer and Other Solid Waste Incinerator Units Sector Lead, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, RTP, NC 27711. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(c) Any performance test used as a representative test in a substitute means of compliance demonstration under paragraph (b) of this section must be conducted following the initial testing requirements of § 60.2922 and demonstrate compliance with the emission limits in table 1b to this subpart. In addition to the results of the performance test and the information required by § 60.8(f)(2), the performance test report must contain the information in paragraphs (c)(1) through (8) of this section.

(1) Unit design, including type of unit and any associated air pollution control devices.

(2) Charge rate during the test.

(3) Type of operation (batch, continuous, intermittent).

(4) Combustion temperature and location of temperature measurement. The temperature must be recorded continuously for each run of the performance test. The performance test

report must also identify the lowest 1-hour average combustion chamber operating temperature.

(5) Types of waste burned during the test.

(6) Waste profile, as defined in § 60.2977, established during the test.

(7) Type and amount of supplemental fuels burned during the test and the timeframe that each supplemental fuel was burned during the test.

(8) If the performance test was conducted on a unit with an air pollution control device, the operating parameter data for the control device must be recorded continuously for each run of the performance test. The performance test report must also identify the lowest or highest, as applicable, 1-hour average for the operating parameter.

(i) For wet scrubbers, the performance test report must include data for pressure drop across the scrubber or amperage to the scrubber, scrubber liquor inlet flow rate, and scrubber liquor pH at the outlet of the scrubber.

(ii) For dry scrubbers, the performance test report must include data for the injection rate of each sorbent used.

(iii) For electrostatic precipitators, the performance test report must include data for the secondary voltage, secondary amperage, and secondary power.

(d) If there are no results from a performance test that meet the requirements of paragraph (c) of this section that are representative of your OSWI unit, you must demonstrate initial compliance according to the requirements of § 60.2927(a).

■ 29. Revise § 60.2932 to read as follows:

§ 60.2932 How do I demonstrate continuous compliance with the emission limitations and the operating limits?

You must demonstrate continuous compliance according to the requirements in paragraphs (a) through (c) of this section, unless you own or operate a very small municipal waste combustion unit or institutional waste incineration unit with a capacity less than or equal to 10 tons per day, you must either comply with the requirements in paragraphs (a) and (c) of this section or the requirements in paragraph (d) of this section.

(a) You must conduct an annual performance test for all pollutants in table 1, 1a, or 1b to this subpart for each OSWI unit to determine compliance

with the emission limitations, except if you own or operate an OSWI unit with a capacity greater than 10 tons per day you are not required to conduct an annual performance test for carbon monoxide. The annual performance test must be conducted using the test methods listed in table 1, 1a, or 1b to this subpart and the procedures in § 60.2922.

(b) You must continuously monitor carbon monoxide emissions to determine compliance with the carbon monoxide emissions limitation. Twelve-hour rolling average values, including CEMS data during startup and shutdown as defined in this subpart, are used to determine compliance. A 12-hour rolling average value above the carbon monoxide emission limit in table 1, 1a, or 1b to this subpart constitutes a deviation from the emission limitation.

(c) You must continuously monitor the operating parameters specified in § 60.2916(a) through (f) or established under § 60.2917. Three-hour rolling average values are used to determine compliance with the operating limits, except for bag leak detection system alarm time, unless a different averaging period is established under § 60.2917. A 3-hour rolling average value (unless a different averaging period is established under § 60.2917) above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. For bag leak detection systems, an alarm time of more than 5 percent of the operating time during a 6-month period constitutes a deviation from the operating limit. Operating limits do not apply during performance tests.

(d) For each very small municipal waste combustion unit or institutional waste incineration unit with capacity less than or equal to 10 tons per day, unless you comply with the requirements in paragraphs (a) and (c) of this section, you must comply with the requirements in paragraphs (d)(1) through (3) of this section.

(1) You must maintain the percentage of waste burned in each waste category within ± 15 percent of the percentage of total waste burned on a mass basis as established for that waste category according to the waste profile established under § 60.2916(g). You must demonstrate that the percentage of waste burned in each waste category is maintained within ± 15 percent of the percentage of total waste burned on a mass basis as established for that waste category according to the waste profile established under § 60.2916(g) according to paragraphs (d)(1)(i) through (iii) of this section.

(i) At the end of each calendar quarter, you must determine the mass of waste burned in each waste category for that quarter. You must determine the total waste burned during the quarter by summing the quarterly totals for all the waste categories. You must then determine the amount of waste burned in each waste category as a percentage of the total waste burned on a mass basis by dividing the quarterly total in each waste category by the quarterly total waste burned.

(ii) You must also maintain records as required in § 60.2949(q).

(iii) The values calculated in (d)(1)(i) must be ± 15 percent of the percentage of total waste burned on a mass basis as established for that waste category according to the waste profile established under § 60.2916(g). Failure to maintain the percentage of waste burned in each waste category within ± 15 percent of the percentage established for that waste category in any calendar quarter constitutes a deviation.

(2) If you want to establish new operating parameter limits or establish a different waste profile, you must comply with § 60.2935(b).

(3) You must continuously monitor the operating parameters specified in § 60.2916(b) through (f), as applicable. The total daily charge rate is used to determine compliance with the charge rate limit in § 60.2916(a). For the operating parameters in § 60.2916(b) through (f), determine compliance as described in paragraph (d)(3)(i) or (ii) of this section. Failure to meet the operating parameters specified in § 60.2916(a) through (f) is a deviation.

(i) Three-hour rolling average values are used to determine compliance with the operating parameter limits, unless your OSWI unit operates on a batch basis and it is operated for less than three hours.

(ii) If your OSWI unit operates on a batch basis, and you operate for less than three hours, compliance with the operating parameter limits is determined by averaging the operating parameter over the length of the batch operation.

■ 30. Revise § 60.2933 to read as follows:

§ 60.2933 By what date must I conduct the annual performance test?

For each OSWI unit that is subject to the annual performance test requirement in § 60.2932(a), you must conduct an annual performance test no later than 14 calendar months following the initial performance test. Conduct subsequent annual performance tests no

later than 14 calendar months following the previous annual performance test.

■ 31. Amend § 60.2934 by adding paragraph (d) to read as follows:

§ 60.2934 May I conduct performance testing less often?

(d) For very small municipal waste combustion units and institutional waste incineration units with capacities less than or equal to 10 tons per day demonstrating initial compliance following the substitute means of compliance demonstration requirements in § 60.2929, the requirements in paragraphs (a) through (c) of this section do not apply.

■ 32. Revise § 60.2935 to read as follows:

§ 60.2935 May I conduct a repeat performance test to establish new operating limits?

(a) Yes, you may conduct a repeat performance test at any time to establish new values for the operating limits. The Administrator may request a repeat performance test at any time.

(b) For each very small municipal waste combustion unit or institutional waste incineration unit for which you opt to demonstrate continuous compliance following the requirements in § 60.2932(d), if you want to establish new operating parameter limits or establish a different waste profile, you must comply with either paragraph (b)(1) or (2) of this section.

(1) You must conduct a new performance test of the unit using the test methods listed in table 1b to this subpart and the procedures in § 60.2922 with a waste stream representative of the new waste profile or under the new operating parameter limits.

(2) You must identify a representative performance test that meets the requirements in § 60.2929(c). You must submit the information in § 60.2929(b)(1) and (2) to the Administrator.

■ 33. Revise § 60.2939(a) to read as follows:

§ 60.2939 What continuous emission monitoring systems must I install?

(a) For each OSWI unit with a capacity greater than 10 tons per day, you must install, calibrate, maintain, and operate continuous emission monitoring systems for carbon monoxide and for oxygen. You must monitor the oxygen concentration at each location where you monitor carbon monoxide.

■ 34. Amend § 60.2940 by revising paragraphs (b) and (c) to read as follows:

§ 60.2940 How do I make sure my continuous emission monitoring systems are operating correctly?

(b) Complete your initial performance evaluation of the continuous emission monitoring systems within 60 days after your OSWI unit reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup.

(c) For initial and annual performance evaluations, collect data concurrently (or within 30 to 60 minutes) using your carbon monoxide and oxygen continuous emission monitoring systems. To validate carbon monoxide concentration levels, use EPA Method 10, 10A, or 10B of Appendix A to this part. Use EPA Method 3A or 3B of Appendix A to this part or ASME/ANSI PTC 19.10–1981 (incorporated by reference, see § 60.17), in lieu of Method 3B, to measure oxygen. Collect the data during each initial and annual evaluation of your continuous emission monitoring systems following the applicable performance specifications in Appendix B to this part. Table 3 to this subpart shows the required span values and performance specifications that apply to each continuous emission monitoring system.

■ 35. Amend § 60.2942 by revising the section heading and paragraphs (a) and (f) to read as follows:

§ 60.2942 What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems?

(a) Where continuous emission monitoring systems are required, obtain 1-hour arithmetic averages. Except for CEMS data during startup and shutdown, as defined in this subpart, the 1-hour arithmetic averages for carbon monoxide must be expressed in parts per million by dry volume corrected to 7 percent oxygen. The CEMS data during startup and shutdown are not corrected to 7 percent oxygen and are measured at stack oxygen content. Use the 1-hour averages of oxygen data from your CEMS to determine the actual oxygen level and to calculate emissions at 7 percent oxygen. Use Equation 2 in § 60.2975 to calculate the 12-hour rolling averages from the 1-hour arithmetic averages.

(f) If continuous emission monitoring systems are temporarily unavailable to meet the data collection requirements, refer to table 3 to this subpart. It shows alternate methods for collecting data when systems malfunction or when repairs, calibration checks, or zero and span checks keep you from collecting

the minimum amount of data. Failure to collect required data is a deviation of the monitoring requirements.

■ 36. Revise § 60.2944 to read as follows:

§ 60.2944 What operating parameter monitoring equipment must I install, or what operating parameters must I monitor?

(a) You must install, calibrate (to manufacturers' specifications at the frequency recommended by the manufacturer), maintain, and operate devices (or establish methods) for monitoring the value of the operating parameters used to determine compliance with the operating limits listed in table 2 to this subpart, as applicable. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in table 2 to this subpart at all times. The devices must be positioned to provide a representative measurement of the parameter monitored.

(b) You must install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of any stack that could be used to bypass the control device. The measurement must include the date, time, and duration of the use of the bypass stack.

(c) If you are using a fabric filter 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 (c)(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. The bag leak sensor(s) must be installed in a position(s) that will be representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment 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 (incorporated by reference, see § 60.17);

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 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 automatically alert an operator when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is observed easily by operating personnel;

(7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter; and

(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(d) If you are required to petition the EPA for operating limits under § 60.2917, you must install, calibrate (to the manufacturers' specifications), maintain, and operate the equipment necessary to monitor compliance with the site-specific operating limits established using the procedures in § 60.2917.

■ 37. Amend § 60.2949 by revising the introductory paragraph, paragraphs (b) through (e), and (g), and adding paragraphs (p), (q) and (r) to read as follows:

§ 60.2949 What records must I keep?

You must maintain the information specified in paragraphs (a) through (r) of this section, as applicable, for a period of at least 5 years.

* * * * *

(b) Records of the data described in paragraphs (b)(1) through (10) of this section.

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

(2) The combustion chamber operating temperature every 15 minutes of operation.

(3) For each OSWI unit with a wet scrubber, the liquor flow rate to the wet scrubber inlet, pressure drop across the wet scrubber system or amperage to the wet scrubber, and liquor pH at the outlet of the wet scrubber, every 15 minutes of operation.

(4) For each OSWI unit with a dry scrubber, the injection rate of each sorbent, every 15 minutes of operation.

(5) For each OSWI unit with an electrostatic precipitator, the secondary voltage, secondary current, and secondary electric power, every 15 minutes of operation.

(6) For each OSWI unit with a fabric filter, the date, time, and duration of

each alarm; the times corrective action was initiated and completed; and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the alarm sounds, calculated as specified in § 60.2916(f).

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

(8) For OSWI units that use a carbon monoxide CEMS, all 1-hour average concentrations of carbon monoxide and oxygen.

(9) All 12-hour rolling average values of carbon monoxide emissions, corrected to 7 percent oxygen (except during periods of startup and shutdown), all 3-hour rolling average values of continuously monitored operating parameters, and total daily charge rates, as applicable.

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

(c) Records of the start date and time and duration in hours of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment, and description of the malfunction.

(d) 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.

(e) Start date, start time, and duration in hours for each period for which monitoring data show a deviation from the carbon monoxide emissions limit in table 1, 1a, or 1b to this subpart, a deviation from the operating limits in table 2 to this subpart, or a deviation from other operating limits established under § 60.2917. Include a description of the deviation, reasons for the deviation, and a description of corrective actions taken. You must record the start date, start time, and duration in hours for each period when all qualified operators were not accessible in accordance with § 60.2911.

* * * * *

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

* * * * *

(p) If you comply with the substitute means of compliance demonstration requirements in § 60.2929, you must keep the records specified in paragraphs (p)(1) through (4) of this section.

(1) Copy of the notification submitted to the Administrator that you intend to use the substitute means of compliance demonstration as required in § 60.2929(a)(1).

(2) Records of the data collected as required in § 60.2929(a)(2).

(3) Copy of the representative performance test used to demonstrate initial compliance; and

(4) Documentation of how the test in paragraph (p)(3) of this section is representative of the unit as required in § 60.2929(b)(2).

(q) If you comply with the continuous compliance requirements of § 60.2932(d), you must keep records of the following elements:

(1) Start and end times the unit is operated when waste is being combusted.

(2) Total mass of waste burned for each waste category (*i.e.*, identity and weight of each waste category such as solid waste, food waste, wood or yard waste), summed for each calendar quarter.

(3) Total mass of waste burned each calendar quarter.

(4) The amount of waste burned in each waste category as a percentage of total waste burned each calendar quarter.

(5) Waste profile established under § 60.2916(g).

(6) Temperature of unit combustion chamber and description of where temperature is measured, as a 3-hour average for each batch operation.

(7) Charge rate (in tons per day) of each operation.

(8) For each very small municipal waste combustion unit or institutional waste incineration unit with a capacity less than or equal to 10 tons per day using a wet scrubber, dry scrubber, electrostatic precipitator, or fabric filter, the records specified in paragraphs (b)(3) through (10) of this section, as applicable.

(9) For each calendar quarter, you must record whether your waste profile meets the requirement in paragraph § 60.2932(d)(1)(iii).

(r) Copies of any notifications submitted pursuant to §§ 60.2887 and 60.2969.

■ 38. Amend § 60.2954 by revising the introductory paragraph and adding paragraph (c) to read as follows:

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

Unless you choose to comply with the substitute means of compliance

demonstration requirements in § 60.2929, you must submit the information specified in paragraphs (a) and (b) of this section no later than 60 days following the initial performance test. All reports must be signed by the facilities manager.

* * * * *

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

■ 39. Revise § 60.2955 to read as follows:

§ 60.2955 When must I submit my annual report?

You must submit an annual report no later than 12 months following the submission of the information in § 60.2954, unless you choose to comply with the substitute means of compliance demonstration requirements in § 60.2929. If you choose to comply with the substitute means of compliance demonstration requirements in § 60.2929, you must submit an annual report no later than 12 months following the submission of the information in § 60.2929(b). You must submit subsequent reports no more than 12 months following the previous report. The permit will address the submittal of annual reports for a unit with an operating permit required under title V of the Clean Air Act.

■ 40. Revise and republish § 60.2956 to read as follows:

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

The annual report required under § 60.2955 must include the items listed in paragraphs (a) through (k) of this section. If you have a deviation from the operating limits or the emission limitations, you must also submit deviation reports as specified in §§ 60.2957 through 60.2959.

(a) Company name and address.

(b) Statement by the owner or operator, with their name, title, and signature, certifying the truth, accuracy, and completeness of the report. Such certifications must also comply with the requirements of 40 CFR 70.5(d) or 40 CFR 71.5(d). If your report is submitted via CEDRI, the certifier's electronic signature during the submission process replaces this requirement.

(c) Date of report and beginning and ending dates of the reporting period. You are no longer required to provide the date of report when the report is submitted via CEDRI.

(d) Identification of each OSWI unit, and for each OSWI unit, the parameters monitored and values for the operating limits established pursuant to § 60.2916 or § 60.2917.

(e) If no deviations from any emission limitation or operating limit that applies to you have occurred during the annual reporting period, a statement that there were no deviations from the emission limitations or operating limits during the reporting period. If you use a CMS to monitor emissions or operating parameters and there were no periods during which any CMS was inoperative, inactive, malfunctioning or out of control, a statement that no monitoring system used to determine compliance with the emission limitations or operating limits was inoperative, inactive, malfunctioning or out of control.

(f) The highest recorded 12-hour average and the lowest recorded 12-hour average, as applicable, for carbon monoxide emissions if you are using a CEMS to demonstrate continuous compliance and the highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.

(g) [Reserved].

(h) If a performance test was conducted during the reporting period, identification of the OSWI unit tested, the pollutant(s) tested, and the date of the performance test. Submit, following the procedure specified in § 60.2961(b), the performance test report no later than the date that you submit the annual report.

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

(j) The start date, start time, and duration in hours for each period of operation when all qualified OSWI unit operators were unavailable for more than 12 hours, but less than 2 weeks.

(k) If you are complying with the continuous compliance requirements in § 60.2932(d) and have had no deviations from maintaining the percentage of waste burned in each waste category within ± 15 percent of the percentage established for that waste category for each calendar quarter for the reporting period, and the OSWI unit has been operated within the operating parameter limits established during the representative performance test identified in the information submitted as required in § 60.2929(b) or the performance test conducted by the source using the test methods listed in table 1b to this subpart and the procedures in § 60.2922, a statement that there were no deviations from the

percentage of waste burned in each category and the OSWI unit has been operated within the established operating parameter limits.

■ 41. Amend § 60.2957 by revising the section heading and paragraph (a) to read as follows:

§ 60.2957 What other reports must I submit if I have a deviation?

(a) You must submit a deviation report as specified in paragraphs (a)(1) through (3) of this section:

(1) If your OSWI unit 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) If your OSWI unit fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any unit that meets the requirements in § 60.2885 and is required to obtain such a permit.

(3) If you deviate from the requirements to have a qualified operator accessible as specified in § 60.2911, you must meet the requirements of § 60.2959.

* * * * *

■ 42. Revise § 60.2958 to read as follows:

§ 60.2958 What must I include in the deviation report?

In each report required under § 60.2957, you must include the company name and address and the beginning and ending dates for the reporting period. For any pollutant or operating parameter that deviated from the emission limitations, operating limits or other requirement specified in this subpart, or for each CMS that experienced downtime or was out of control, include the items described in paragraphs (a) through (g) of this section, as applicable. If you are complying with the continuous compliance requirements in § 60.2932(d), you must also include the items described in paragraphs (h) and (i) of this section. You must identify the OSWI unit, and as applicable, the CMS, associated with the information required in paragraphs (a) through (i) of this section in your deviation report.

(a) Identification of the emission limit, operating parameter or other requirement except as provided in paragraphs (h) and (i), from which there was a deviation and the start date, start time, and duration in hours of each deviation.

(b) For each deviation identified in paragraph (a) of this section, the averaged and recorded data for those

date, including, when applicable, the information recorded under § 60.2949(b)(9) and (c) through (e) for the calendar period being reported.

(c) For each deviation identified in paragraph (a) of this section, the cause of each deviation from the emission limitations, operating limits or other requirement and your corrective actions.

(d) For each CMS, the start date, start time, duration in hours, and cause for each instance of monitor downtime (other than downtime associated with zero, span, and other routine calibration checks).

(e) For each CMS, the start date, start time, duration in hours, and corrective action taken for each instance that the monitor is out of control.

(f) The start date, start time, and duration in hours of any bypass of the control device and your corrective actions.

(g) For batch OSWI units, the start date, start time, and duration in hours of any deviation from the requirements to have a qualified operator accessible as required in § 60.2911.

(h) If you are complying with the continuous compliance requirements for OSWI units in § 60.2932(d), you must identify each calendar quarter when your waste profile did not meet the requirements in § 60.2932(d)(1)(iii). For each deviation, you must identify each waste category that did not meet the percentage requirements, the established percentage of total waste burned on a mass basis for that waste category in your waste profile, and the actual percentage of total waste burned on a mass basis for that waste category during the calendar quarter.

(i) If you are complying with the continuous compliance requirements in § 60.2932(d), for each deviation of an operating parameter limit, identification of the operating parameter from which there was a deviation and the start date, start time, duration in hours, and cause for each deviation from the operating parameter limits established during the representative performance test identified in the information submitted as required in § 60.2929(b) or a performance test of the unit conducted using the test methods listed in table 1b to this subpart and the procedures in § 60.2922 as required in § 60.2927(a) or § 60.2935(b).

■ 43. Revise § 60.2961 to read as follows:

§ 60.2961 In what form can I submit my reports?

(a) You must submit annual and deviation reports electronically or in paper format, postmarked on or before the submittal due dates. Beginning on

June 30, 2026, or once the report template for this subpart has been available on the Compliance and Emissions Data Reporting Interface (CEDRI) website (<https://www.epa.gov/electronic-reporting-air-emissions/cedri>) for one year, whichever date is later, you must submit all subsequent annual compliance reports and deviation reports using the appropriate electronic report template on the CEDRI website for this subpart and following the procedure specified in paragraph (c) of this section. The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

(b) Beginning on December 29, 2025, within 60 days after the date of completing each performance test or CEMS performance evaluation that includes a relative accuracy test audit (RATA) required by this subpart, you must submit the results following the procedures specified in paragraph (c) of this section. You must submit the report in a file format generated using the EPA's Electronic Reporting Tool (ERT). Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) accompanied by the other information required by § 60.8(f)(2) in portable document format (PDF). If your performance test consists solely of opacity measurements, the results do not need to be submitted in the format generated by the ERT. Instead, you may submit a PDF of the results of the opacity measurements to the EPA via CEDRI.

(c) If you are required to submit reports following the procedure specified in this paragraph (c), you must submit reports to the EPA via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information in the report, you must submit a complete file in the format specified in this subpart, including information claimed to be CBI, to the EPA following the

procedures in paragraphs (c)(1) and (2) of this section. Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in this paragraph (c).

(1) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqps_cbi@epa.gov, and as described above, should include clear CBI markings. ERT files should be flagged to the attention of the Group Leader, Measurement Policy Group; all other files should be flagged to the attention of the Other Solid Waste Incinerator Units Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqps_cbi@epa.gov to request a file transfer link.

(2) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, RTP, NC 27711. In addition to the OAQPS Document Control Officer, ERT files should also be sent to the attention of the Group Leader, Measurement Policy Group, and all other files should also be sent to the attention of the Other Solid Waste Incinerator Units Sector Lead. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(d) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. To assert a claim of EPA system outage, you must meet

the requirements outlined in paragraphs (d)(1) through (7) of this section.

(1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

(2) The outage must have occurred within the period beginning five business days prior to the date that the submission is due.

(3) The outage may be planned or unplanned.

(4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(5) You must provide to the Administrator a written description identifying:

(i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

(e) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with the reporting requirement. To assert a claim of force majeure, you must meet the requirements outlined in paragraphs (e)(1) through (5) of this section.

(1) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time prescribed. Examples of such events are

acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage).

(2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(3) You must provide to the Administrator:

(i) A written description of the force majeure event;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(4) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(5) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

§ 60.2970 [Amended]

■ 44. Amend § 60.2970 by removing and reserving paragraph (b) to read as follows:

■ 45. Revise § 60.2971(b) to read as follows:

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

* * * * *

(b) The limitations in paragraph (a) of this section apply at all times.

■ 46. Revise § 60.2972(a) to read as follows:

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

(a) Use EPA Method 9 of Appendix A to this part or ASTM D7520-16 (incorporated by reference, see § 60.17), to determine compliance with the opacity limitation.

* * * * *

■ 47. Revise § 60.2973(e) to read as follows:

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

* * * * *

(e) Before December 29, 2025, submit initial and annual opacity test reports as electronic or paper copy on or before the applicable submittal date. On and after December 29, 2025, within 60 days after the date of completing the initial opacity test and each annual opacity test required by this subpart, you must submit the results of the opacity test following the procedures specified in § 60.2961(b).

* * * * *

■ 48. Revise § 60.2975(d) to read as follows:

§ 60.2975 What equations must I use?

* * * * *

(d) *Carbon monoxide pollutant rate.* When hourly average pollutant rates (E_h) are obtained (e.g., CEMS values), compute the rolling average carbon monoxide pollutant rate (E_a) for each 12-hour period using the following equation:

Equation 2 to Paragraph (d)

$$E_a = \frac{1}{12} \sum_{j=1}^{12} E_{hj} \quad (\text{Eq. 2})$$

Where:

E_a = Average carbon monoxide pollutant rate for the 12-hour period, parts per million (ppm) corrected to 7 percent O_2 . Note that a 12-hour period may include CEMS data during startup and shutdown, as defined in the subpart, in which case the period will not consist entirely of data that have been corrected to 7 percent O_2 .

E_{hj} = Hourly arithmetic average pollutant rate for hour "j," ppm corrected to 7 percent O_2 . CEMS data during startup and shutdown, as defined in the subpart, are not corrected to 7 percent oxygen, and are measured at stack oxygen content.

■ 49. Amend § 60.2977 by:

- a. Revising the definition of "Administrator";
- b. Adding the definition of "CEMS data during start up and shutdown";
- c. Removing the definition of "Collected from";
- d. Revising the definitions of "Deviation", "Low-level radioactive waste", "Modification or modified unit", "Particulate matter", and "Reconstruction";
- e. Adding the definitions of "Rudimentary combustion device", and "Small remote incinerator";
- f. Revising the definition of "Very small municipal waste combustion unit"; and
- g. Adding the definition of "Waste profile".

The revisions and additions read as follows:

§ 60.2977 What definitions must I know?

* * * * *

Administrator means:

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

(2) For Federal section 111(d)/129 plans, the Administrator of the EPA, an employee of the EPA, the Director of the state air pollution control agency, or employee of the state air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task; and

(3) For NSPS, the Administrator of the EPA, an employee of the EPA, the Director of the state air pollution control agency, or employee of the state air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task.

* * * * *

CEMS data during startup and shutdown means CEMS data collected during the first hours of a OSWI startup from a cold start until waste is fed to the unit and the hours of operation following the cessation of waste material being fed to the OSWI during a unit shutdown. For each startup event, the length of time that CEMS data may be claimed as being CEMS data during startup must be 48 operating hours or less. For each shutdown event, the length of time that CEMS data may be claimed as being CEMS data during shutdown must be 24 operating hours or less.

* * * * *

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

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

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

* * * * *

Low-level radioactive waste means waste material that contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable Federal or state standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or byproduct material as defined by the

Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

* * * * *

Modification or modified unit means an incineration unit that meets one of two criteria:

(1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the unit (not including the cost of land) updated to current costs (current dollars). For an OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.

(2) Any physical change in the unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

* * * * *

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

* * * * *

Reconstruction means rebuilding an incineration unit where the cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the unit (not including land) updated to current costs (current dollars). For an OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.

* * * * *

Rudimentary combustion device means a combustion device with capacity less than or equal to 10 tons per day that is designed and constructed without one or more of the following elements: (1) a stack, chimney, or pipe designed for the purpose of discharging flue gases from combustion; (2) mechanical draft to provide airflow; (3) burners designed to initiate and/or assist the combustion process, including burners designed to burn supplementary fuel; or (4) an ancillary power supply to operate.

* * * * *

Small remote incinerator means an incinerator that combusts 3 tons per day or less of municipal-type solid waste and is more than 25 miles driving distance to the nearest municipal solid waste landfill.

* * * * *

Very small municipal waste combustion unit means any municipal waste combustion unit and small remote incinerator, as defined in this subpart,

that has the capacity to combust less than 35 tons per day of municipal solid waste or refuse-derived fuel, as determined by the calculations in § 60.2975. As of December 29, 2025 small remote incinerators are considered very small municipal waste combustion units.

* * * * *

Waste profile means, for a very small municipal waste combustion unit or institutional waste incineration unit with a capacity less than or equal to 10 tons per day, the amount of each waste category burned as a percentage of total waste burned on a mass basis.

* * * * *

■ 50. Revise table 1 to subpart EEEE of part 60 to read as follows:

**Table 1 to Subpart EEEE of Part 60—
Emission Limitations for OSWI Units
That Commenced Construction on or
Before August 31, 2020**

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

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
1. Cadmium	18 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of Appendix A to this part.
2. Carbon monoxide	40 parts per million by dry volume.	3-run average (1 hour minimum sample time per run during performance test), and 12-hour rolling averages measured using CEMS ^b .	Method 10, 10A, or 10B of Appendix A to this part and CEMS.
3. Dioxins/furans (total basis).	33 nanograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 23 of Appendix A to this part.
4. Hydrogen chloride	15 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 26A of Appendix A to this part.
5. Lead	226 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of Appendix A to this part.
6. Mercury	74 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of Appendix A to this part.
7. Opacity	10 percent	6-minute average (observe over three 1-hour test runs; <i>i.e.</i> , thirty 6-minute averages).	Method 9 of Appendix A to this part, or ASTM D7520–16 (incorporated by reference (IBR), see § 60.17) if the following conditions are met: 1. During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520–16, you or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand). 2. You must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520–16. 3. You must follow the recordkeeping procedures outlined in § 63.10(b)(1) of this subchapter for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination. 4. You or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of any one reading and the average error must not exceed 7.5 percent opacity.
8. Oxides of nitrogen	103 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 7, 7A, 7C, 7D, or 7E of Appendix A to this part, or ASME/ANSI PTC 19.10–1981 (IBR, see § 60.17) in lieu of Methods 7 and 7C only.
9. Particulate matter	0.013 grains per dry standard cubic foot.	3-run average (1 hour minimum sample time per run).	Method 5 or 29 of Appendix A to this part.
10. Sulfur dioxide	3.1 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 6 or 6C of Appendix A to this part, or ASME/ANSI PTC 19.10–1981 (IBR, see § 60.17) in lieu of Method 6 only.

^aAll emission limitations (except for opacity and CEMS data during startup and shutdown) are measured at 7 percent oxygen, dry basis at standard conditions. CEMS data during startup and shutdown are measured at stack oxygen content.

^bCalculated each hour as the average of the previous 12 operating hours.

■ 51. Add tables 1a and 1b to subpart EEEE of part 60 to read as follows:

**Table 1a to Subpart EEEE of Part 60—
Emission Limitations for OSWI Units
With Capacities Greater Than 10 Tons
per Day That Commenced Construction
After August 31, 2020 or Commenced
Reconstruction or Modification on or
After December 29, 2025**

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

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
1. Cadmium	18 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of Appendix A to this part.

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
2. Carbon monoxide	40 parts per million by dry volume.	3-run average (1 hour minimum sample time per run during performance test), and 12-hour rolling averages measured using CEMS ^b .	Method 10, 10A, or 10B of Appendix A to this part and CEMS.
3. Dioxins/furans (total basis).	33 nanograms per dry standard cubic meter.	3-run average (1 hour minimum sample meter time per run).	Method 23 of Appendix A to this part.
4. Hydrogen chloride	15 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 26A of Appendix A to this part.
5. Lead	226 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of Appendix A to this part.
6. Mercury	74 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of Appendix A to this part.
7. Opacity	10 percent	6-minute average (observe over three 1-hour test runs; i.e., thirty 6-minute averages).	Method 9 of Appendix A to this part, or ASTM D7520–16 (IBR, see § 60.17), if the following conditions are met: 1. During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520–16, you or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand). 2. You must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520–16. 3. You must follow the recordkeeping procedures outlined in § 63.10(b)(1) of this subchapter for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination. 4. You or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of any one reading and the average error must not exceed 7.5 percent opacity.
8. Oxides of nitrogen	103 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 7, 7A, 7C, 7D, or 7E of Appendix A to this part, or ASME/ANSI PTC 19.10–1981 (IBR, see § 60.17) in lieu of Methods 7 and 7C only.
9. Particulate matter	0.013 grains per dry standard cubic foot.	3-run average (1 hour minimum sample time per run).	Method 5 or 29 of Appendix A to this part.
10. Sulfur dioxide	3.1 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 6 or 6C of Appendix A to this part, or ASME/ANSI PTC 19.10–1981 (IBR, see § 60.17) in lieu of Method 6 only.

^a All emission limitations (except for opacity and CEMS data during startup and shutdown) are measured at 7 percent oxygen, dry basis at standard conditions. CEMS data during startup and shutdown are measured at stack oxygen content.

^b Calculated each hour as the average of the previous 12 operating hours.

**Table 1b to Subpart EEEE of Part 60—
Emission Limitations for OSWI Units
With Capacities Less Than or Equal to
10 Tons per Day With That Commenced
Construction After August 31, 2020 or
Commenced Reconstruction or
Modification on or After December 29,
2025**

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

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
1. Cadmium	400 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of Appendix A to this part.
2. Carbon monoxide	69 parts per million by dry volume.	3-run average (1 hour minimum sample time per run during performance test), and 12-hour rolling averages measured using CEMS ^b .	Method 10, 10A, or 10B of Appendix A to this part.
3a. Dioxins/furans (total mass basis) ^c .	3,100 nanograms per dry standard cubic meter.	3-run average (1 hour minimum sample meter time per run).	Method 23 of Appendix A to this part.
3b. Dioxins/furans (toxic equivalency basis) ^c .	40 nanograms per dry standard cubic meter.	3-run average (1 hour minimum sample meter time per run).	Method 23 of Appendix A to this part.
4. Hydrogen chloride	210 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 26A of Appendix A to this part.
5. Lead	26,000 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of Appendix A to this part.

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
6. Mercury	12 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of Appendix A to this part.
7. Opacity	10 percent	6-minute average (observe over three 1-hour test runs; i.e., thirty 6-minute averages).	Method 9 of Appendix A to this part, or ASTM D7520–16 (IBR, see § 60.17), if the following conditions are met: 1. During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520–16, you or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand). 2. You must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520–16. 3. You must follow the recordkeeping procedures outlined in § 63.10(b)(1) of this subchapter for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination. 4. You or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of any one reading and the average error must not exceed 7.5 percent opacity.
8. Oxides of nitrogen	180 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 7, 7A, 7C, 7D, or 7E of Appendix A to this part, or ASME/ANSI PTC 19.10–1981 (IBR, see § 60.17) in lieu of Methods 7 and 7C only.
9. Particulate matter	210 milligrams per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 5 or 29 of Appendix A to this part.
10. Sulfur dioxide	38 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 6 or 6C of Appendix A to this part, or ASME/ANSI PTC 19.10–1981 (IBR, see § 60.17) in lieu of Method 6 only.

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

^b Calculated each hour as the average of the previous 12 operating hours.

^c For dioxins/furans, you must meet either the total mass basis limit or the toxic equivalency basis limit.

■ 52. Revise tables 2, 3 and 4 to subpart EEEE of part 60 to read as follows:

**Table 2 to Subpart EEEE of Part 60—
Operating Limits for Incinerators**

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

For these operating parameters	You must establish these operating limits	And monitoring using these minimum frequencies		
		Data measurement	Data recording	Averaging time
1. Charge rate	Maximum charge rate	Periodic	For batch units, each batch. For continuous or intermittent units, every hour.	Daily for batch units or units complying with § 60.2932(d). 3-hour rolling for continuous and intermittent units. ^a
2. Combustion temperature	Minimum combustion chamber operating temperature.	Continuous	Every 15 minutes	3-hour rolling. ^a
3. Pressure drop across the wet scrubber or amperage to wet scrubber.	Minimum pressure drop or amperage.	Continuous	Every 15 minutes	3-hour rolling. ^a
4. Wet scrubber liquor flow rate	Minimum flow rate at inlet to the scrubber.	Continuous	Every 15 minutes	3-hour rolling. ^a
5. Wet scrubber liquor pH	Minimum pH at scrubber outlet ...	Continuous	Every 15 minutes	3-hour rolling. ^a
6. Dry scrubber sorbent injection ..	Minimum injection rate of each sorbent.	Continuous	Every 15 minutes	3-hour rolling. ^a
7. Electrostatic precipitator secondary electric power.	Minimum secondary electric power, calculated from the secondary voltage and secondary current.	Continuous	Every 15 minutes	3-hour rolling. ^a
8. Bag leak detection system alarm time.	Alarm time <5 percent of the operating time during a 6-month period.	Continuous	Each date and time of alarm start and stop.	Calculate alarm time as specified in § 60.2916(f).
9. Waste profile	The amount of each waste category burned as a percentage of total waste burned on a mass basis.	Periodic	For batch units, each batch. For continuous or intermittent units, every hour.	Calendar quarter.

^a Calculated each hour as the average of the previous 3 operating hours.

**Table 3 to Subpart EEEE of Part 60—
Requirements for Continuous Emission
Monitoring Systems (CEMS)**

As stated in § 60.2940, you must comply with the following:

For the following pollutants	Use the following span values for your CEMS	Use the following performance specifications (P.S.) in Appendix B of this part for your CEMS	If needed to meet minimum data requirements, use the following alternate methods in Appendix A of this part to collect data
1. Carbon Monoxide	125 percent of the maximum hourly potential carbon monoxide emissions of the waste combustion unit.	P.S.4A	Method 10.
2. Oxygen	25 percent oxygen	P.S.3	Method 3A or 3B of Appendix A to this part, or ASME/ANSI PTC 19.10–1981 (IBR, see § 60.17) in lieu of Method 3B only.

Table 4 to Subpart EEEE of Part 60— Summary of Reporting Requirements

As stated in § 60.2951, you must comply with the following:

[illegible]

Report	Due date	Contents	Reference
5. Emission limitation or operating limit deviation report.	a. By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year.	i. Dates and times of deviation; ii. Averaged and recorded data for those dates; iii. Duration and causes of each deviation and the corrective actions taken; iv. Copy of operating limit monitoring data and any test reports; v. Dates, times, and causes for monitor downtimes incidents; vi. Whether each deviation occurred during a period of startup, shutdown, or malfunction; and vii. Dates, times, and durations of any bypass of the control device.	§§ 60.2957 and 60.2958. §§ 60.2957 and 60.2958. §§ 60.2957 and 60.2958. §§ 60.2957 and 60.2958. §§ 60.2957 and 60.2958. §§ 60.2957 and 60.2958. §§ 60.2957 and 60.2958.
6. Qualified operator deviation notification.	a. Within 10 days of deviation	i. Statement of cause of deviation; ii. Description of efforts to have an accessible qualified operator; and iii. The date a qualified operator will be accessible.	§ 60.2959(a)(1). § 60.2959(a)(1). § 60.2959(a)(1).
7. Qualified operation deviation status report.	a. Every 4 weeks following deviation	i. Description of efforts to have an accessible qualified operator; ii. The date a qualified operator will be accessible; and iii. Request to continue operation.	§ 60.2959(a)(2). § 60.2959(a)(2). § 60.2959(a)(2).
8. Qualified operator deviation notification of resumed operation.	a. Prior to resuming operation	i. Notification that you are resuming operation	§ 60.2959(b).

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

Subpart FFFF—Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units

■ 53. Revise the heading of subpart FFFF to part 60 to read as set out above.

■ 54. Revise § 60.2980 to read as follows:

§ 60.2980 What is the purpose of this subpart?

This subpart establishes emission guidelines and compliance schedules for the control of emissions from other solid waste incineration (OSWI) units. The pollutants addressed by these emission guidelines are listed in tables 2 and 2a to 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.

■ 55. Revise § 60.2981 to read as follows:

§ 60.2981 Am I affected by this subpart?

(a) If you are the Administrator of an air quality program in a state or United States protectorate with one or more existing incineration units as defined in § 60.2992, you must submit a state plan to the U.S. Environmental Protection Agency (EPA) that implements the emission guidelines contained in this subpart.

(b) You must submit the state plan to the EPA by June 30, 2026.

■ 56. Revise § 60.2982 to read as follows:

§ 60.2982 Is a state plan required for all States?

No, you are not required to submit a state plan if there are no existing incineration units that are an OSWI unit as defined in §§ 60.2992 and 60.3078 or air curtain incinerators subject to this

subpart as described in § 60.2994 in your state and you submit a negative declaration letter in place of the state plan.

■ 57. Amend § 60.2983 by revising the section heading and paragraph (b) to read as follows:

§ 60.2983 What must I include in my state plan?

* * * * *

(b) Your state plan may deviate from the format and content of the emission guidelines contained in this subpart. However, if your state plan does deviate, you must demonstrate that your state plan is at least as protective as the emission guidelines contained in this subpart. Your state plan must address regulatory applicability, compliance schedule, operator training and qualification, a waste management plan, emission limitations, stack testing or substitute means of compliance, operating parameter requirements, monitoring, recordkeeping and reporting, and air curtain incinerator requirements.

* * * * *

■ 58. Revise § 60.2985 to read as follows:

§ 60.2985 What if my state plan is not approvable?

(a) If you do not submit an approvable state plan (or a negative declaration letter) that meets the requirements of this subpart by July 1, 2026, the EPA will develop a Federal plan according to § 60.27, to implement the emission guidelines contained in this subpart.

(b) Owners and operators of incineration units not covered by an approved state plan must comply with the Federal plan. The Federal plan is an

interim action and applies to units until a state plan covering those units is approved and becomes effective.

■ 59. Revise § 60.2986 to read as follows:

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

No, the EPA has no formal review process for negative declaration letters. Once we receive your negative declaration letter, we will place a copy in the public docket and publish a notice in the **Federal Register**. If, at a later date, an existing incineration unit as defined in § 60.2992 is found in your state, the Federal plan implementing the emission guidelines contained in this subpart would automatically apply to that unit until your state plan is approved.

■ 60. Revise § 60.2887 to read as follows:

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

Your state plan must include compliance schedules that require existing incineration units as defined in § 60.2992 to achieve final compliance as expeditiously as practicable after approval of the state plan but not later than the earlier of the following dates:

(a) July 1, 2030.

(b) Three years after the effective date of state plan approval.

■ 61. Amend § 60.2988 by revising the section heading and paragraph (a) to read as follows:

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

* * * * *

(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 existing incineration units to comply with the emissions and operating limits at all times by July 1, 2030, or 3 years after the effective date of state plan approval, whichever is sooner. This applies instead of the option for case-by-case less stringent emission standards and longer compliance schedules in § 60.24(f).

* * * * *

■ 62. Revise § 60.2989 to read as follows:

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

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

(b) If you do not submit an approvable state plan to implement and enforce the guidelines contained in this subpart by June 30, 2027, the EPA will implement and enforce a Federal plan, as provided in § 60.2985, to ensure that each unit within your state reaches compliance with all the provisions of this subpart by July 1, 2030.

■ 63. Revise § 60.2990 to read as follows:

§ 60.2990 What Authorities are withheld by EPA?

The following authorities are withheld by the EPA and not transferred to the state, local or Tribal authority:

(1) The authority to approve alternatives to the emission limitations in tables 2 and 2a to this subpart and operating limits established under § 60.3023 and table 3 to this subpart.

(2) The authority to approve petitions for specific operating limits in accordance with the requirements in § 60.3024.

(3) The authority of the Administrator to receive and grant petitions under § 60.8(b)(3) to approve of major alternatives to test methods in § 60.3027.

(4) The authority to approve major alternatives to monitoring in §§ 60.3038 through 60.3044.

(5) The authority to approve major alternatives to recordkeeping and reporting in §§ 60.3046 through 60.3057.

(6) The authority to receive the required notices and to approve continued operation in connection with the status report requirements in § 60.3020(c)(2).

(7) The authority of the Administrator to receive and grant petitions under § 60.11(e)(6) through (8) to adjust opacity standards and establish opacity standards in accordance with § 60.3022 and §§ 60.3066 through 60.3068.

(8) The authority of the Administrator under § 60.8(b)(4) to waive performance test and § 60.8(b)(5) to approve shorter sampling times or smaller sample volumes.

(9) The authority to approve an alternative to any electronic reporting to the EPA required by this subpart.

■ 64. Revise and republish § 60.2991 to read as follows:

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

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

(a) The incineration unit is an existing incineration unit as defined in § 60.2992, except as specified in paragraph (d) of this section.

(b) The incineration unit is an OSWI unit as defined in § 60.3078 or an air curtain incinerator subject to this subpart as described in § 60.2994(b). OSWI units are very small municipal waste combustion units and institutional waste incineration units as defined in § 60.3078 and include very small municipal waste combustion units and institutional waste incineration units with capacities less than or equal to 10 tons per day.

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

(d) This subpart does not apply to your unit if it is a rudimentary combustion device as defined in § 60.3078.

(e) If your existing incineration unit meets the requirements in § 60.2991(a) or (b), and you replace the unit or make changes to the unit that meet the definition of modification or reconstruction, the unit is subject to the requirements in § 60.2885, except § 60.2885(d) does not apply.

(f) If your existing incineration unit meets the requirements in § 60.2991(a) or (b), and you make physical or operational changes to the unit, that do not meet the definition of modification or reconstruction, the unit is still subject to the requirements in § 60.2991, except § 60.2991(d) does not apply.

■ 65. Revise § 60.2992 to read as follows:

§ 60.2992 What is an existing incineration unit?

(a) An existing incineration unit covered by state plan regulations under

this subpart is an OSWI unit as defined in § 60.3078 or air curtain incinerator as specified in § 60.2994, which meets the criteria in paragraph (a)(1) of this section except as provided in paragraph (b) of this section.

(1) The OSWI unit or air curtain incinerator subject to this subpart commenced construction on or before August 31, 2020.

(2) If your OSWI unit subject to this subpart is a very small municipal waste combustion unit or institutional waste incineration unit that:

(i) Commenced construction after December 9, 2004, and on or before August 31, 2020, and met the applicability of § 60.2886(a)(1) before December 29, 2025, the unit is considered a new incineration unit and remains subject to the emission limitations of table 1 and applicable requirements of subpart EEEE of this part (New Source Performance Standards for Other Solid Waste Incineration Units) until the unit becomes subject to an approved state plan or Federal plan that implements this subpart; or,

(ii) Commenced reconstruction or modification on and after June 16, 2006, and met the applicability of § 60.2886(a)(2) before December 29, 2025, the unit remains subject to the emission limitations of table 1 and applicable requirements of subpart EEEE of this part (New Source Performance Standards for Other Solid Waste Incineration Units) until the unit becomes subject to an approved state plan or Federal plan that implements this subpart.

(iii) Met the applicability of § 60.2015 or § 60.2550(a) as of December 29, 2025, then your unit remains subject to subpart CCCC or DDDD of this part, or subpart IIIa of part 62 until the unit becomes subject to the requirements of an approved state plan or Federal plan that implements subpart FFFF of this part (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units).

(b) If the owner or operator of an incineration unit that commenced construction on or before December 9, 2004, makes changes that meet the definition of modification or reconstruction on or after December 29, 2025, the unit becomes subject to subpart EEEE of this part (New Source Performance Standards for Other Solid Waste Incineration Units) and the state plan no longer applies to that unit.

(c) If the owner or operator of an existing incineration unit makes physical or operational changes to the unit primarily to comply with the state plan, then subpart EEEE of this part

does not apply to that unit. Such changes do not qualify as modifications or reconstructions under subpart EEEE of this part.

■ 66. Amend § 60.2993 by revising the section heading, paragraphs (b)(1) and (3), and paragraph (q) introductory text to read as follows:

§ 60.2993 Are any combustion units excluded from my state plan?

* * * * *

(b) * * *

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

* * * * *

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

* * * * *

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

* * * * *

■ 67. Amend § 60.2994 by revising paragraph (a) and paragraph (b) introductory text to read as follows:

§ 60.2994 Are air curtain incinerators regulated under this subpart?

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

(b) Air curtain incinerators that burn less than 35 tons per day and burn only the materials listed in paragraphs (b)(1) through (4) of this section collected from the general public and from residential, commercial, institutional, or industrial sources; or air curtain incinerators located at institutional facilities that burn only the materials listed in paragraphs (b)(1) through (4) of this section generated at that facility, are required to meet only the requirements in §§ 60.3062 through 60.3068 and are exempt from all other requirements of this subpart.

* * * * *

■ 68. Amend § 60.2998 by revising the introductory paragraph and adding paragraphs (j) and (k) to read as follows:

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

The model rule contains 11 major components, as follows:

* * * * *

(j) Definitions.

(k) Tables.

■ 69. Under the heading “Model Rule—Compliance Schedule”, add § 60.3003 to read as follows:

§ 60.3003 What else must I do prior to the compliance date if I meet the substitute means of compliance demonstration?

If you intend to meet the requirements for the substitute means of compliance demonstration requirements in § 60.3032, the requirements in § 60.3032(a) and (b) must be completed prior to the compliance date in table 1 to this subpart.

■ 70. Amend § 60.3014 by revising paragraphs (b), paragraph (c) introductory text, and paragraphs (c)(1)(iv), (viii), and (x) to read as follows:

§ 60.3014 What are the operator training and qualification requirements?

* * * * *

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

(c) Training must be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in paragraphs (c)(1) through (3) of this section:

(1) * * *

(iv) Combustion controls and monitoring, including good combustion practices and waste characterization procedures.

* * * * *

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

* * * * *

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

* * * * *

■ 71. Amend § 60.3015 by revising the introductory paragraph and paragraph (b) to read as follows:

§ 60.3015 When must the operator training course be completed?

The operator training course must be completed by the latest of the dates specified in paragraphs (a) through (c) of this section.

* * * * *

(b) Six months after your OSWI unit startup date.

* * * * *

■ 72. Revise § 60.3017(d) to read as follows:

§ 60.3017 How do I maintain my operator qualification?

* * * * *

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

* * * * *

■ 73. Amend § 60.3019 by:

■ a. Revising paragraph (a) introductory text, and paragraph (a)(4);

■ b. Adding paragraph (a)(10); and

■ c. Revising paragraph (c)(2).

The revisions and addition read as follows:

§ 60.3019 What site-specific documentation is required?

(a) Documentation must be available at the facility and readily accessible for all OSWI unit operators that addresses the ten topics described in paragraphs (a)(1) through (10) of this section. You must maintain this information and the training records required by paragraph (c) of this section in a manner that they can be readily accessed and are suitable for inspection upon request.

* * * * *

(4) Procedures for maintaining good combustion practices, including proper combustion air supply levels.

* * * * *

(10) Procedures for establishing initial and continuous compliance, including but not limited to, procedures to determine waste characterization.

* * * * *

(c) * * *

(2) Records showing the names of the OSWI unit operators who have completed the operator training requirements under § 60.3014, met the criteria for qualification under § 60.3016, and maintained or renewed their qualification under § 60.3017 or § 60.3018. Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

* * * * *

■ 74. Amend § 60.3020 by revising the introductory text to read as follows:

§ 60.3020 What if all the qualified operators are temporarily not accessible?

For each batch OSWI unit, a qualified operator must always be accessible when the unit is operating. For each continuous OSWI unit or intermittent OSWI unit, if all qualified operators are temporarily not accessible (*i.e.*, not at the facility and not able to be at the facility within 1 hour), you must meet one of the three criteria specified in paragraphs (a) through (c) of this section, depending on the length of time

that a qualified operator is not accessible.

* * * * *

■ 75. Revise § 60.3022 to read as follows:

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

For OSWI units as defined that are very small municipal waste combustion units and institutional waste incineration units with capacities greater than 10 tons per day, you must meet the emission limitations specified in table 2 to this subpart, except as provided in § 60.2992(a)(2). For OSWI units that are very small municipal waste combustion units and institutional waste incineration units with capacities less than or equal to 10 tons per day, you must meet the emission limitations specified in table 2a to this subpart, except as provided in § 60.2992(a)(2). You must meet the emissions limitations on the date the initial performance test is required or completed (whichever is earlier). Section 60.3031 specifies the date by which you are required to conduct your performance test.

■ 76. Revise § 60.3023 to read as follows:

§ 60.3023 What operating limits must I meet and by when?

You must comply with the requirements in paragraphs (a) through (h) of this section, as applicable. If you own or operate a very small municipal waste combustion unit or institutional waste incineration unit using the substitute means of compliance demonstration under § 60.3032, the references in this section to the most recent performance test demonstrating compliance are not applicable and instead, refer to the limits established during the representative performance test identified in the information submitted as specified in § 60.3032(b).

(a) You must establish a maximum charge rate, calculated using the procedures in paragraph (a)(1) or (2) of this section, as appropriate.

(1) For continuous and intermittent units, maximum charge rate is the average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(2) For batch units, maximum charge rate is the charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(b) You must establish a minimum combustion chamber operating temperature equal to the lowest 1-hour average combustion chamber operating

temperature measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(c) If you use a wet scrubber to comply with the emission limitations, you must establish operating limits for the operating parameters as described in paragraphs (c)(1) through (3) of this section.

(1) Minimum pressure drop across the wet scrubber, which is calculated as the lowest 1-hour average pressure drop across the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations; or minimum amperage to the wet scrubber, which is calculated as the average amperage to the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(2) Minimum scrubber liquor flow rate, which is calculated as the lowest 1-hour average liquor flow rate at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(3) Minimum scrubber liquor pH, which is calculated as the lowest 1-hour average liquor pH at the outlet to the wet scrubber measured during the most recent performance test demonstrating compliance with the hydrogen chloride and sulfur dioxide emission limitations.

(d) If you use a dry scrubber to comply with the emission limitations, you must measure the injection rate of each sorbent during the performance test. The minimum operating limit for the injection rate of each sorbent is calculated as the lowest 1-hour average injection rate for each sorbent measured during the most recent performance test demonstrating compliance with the hydrogen chloride emission limitations.

(e) If you use an electrostatic precipitator to comply with the emission limitations, you must measure the (secondary) voltage and amperage of the electrostatic precipitator collection plates during the particulate matter performance test. Calculate the average electric power value (secondary voltage × secondary current = secondary electric power) for each test run. The minimum operating limit for the electrostatic precipitator is calculated as the lowest 1-hour average secondary electric power measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(f) If you use a fabric filter to comply with the emission limitations, you must operate each fabric filter system such

that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period. Calculate the alarm time (*i.e.*, time that the alarm sounds) as specified in paragraphs (f)(1) and (2) of this section.

(1) If inspection of the fabric filter demonstrates that no corrective action is required, the alarm duration is not counted in the alarm time calculation.

(2) If corrective action is required and you take less than an hour to initiate corrective action, the alarm time is counted as 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action.

(g) If you own or operate a very small municipal waste combustion unit or institutional waste incineration unit with capacity less than or equal to 10 tons per day and you demonstrate continuous compliance according to § 60.3033(d), you must establish the amount of waste burned in each waste category as a percentage of total waste burned on a mass basis. These percentages are your waste profile and must be based on the categories of waste fed to the incinerator (*e.g.*, food waste, paper waste, wood waste) during the most recent performance test.

(h) You must meet the operating limits established during the initial or representative performance test no later than the date specified in paragraph (h)(1) or (2) of this section, as applicable.

(1) For each OSWI unit with a capacity greater than 10 tons per day or for each very small municipal waste combustion unit or institutional waste incineration unit with a capacity less than or equal to 10 tons per day for which you conduct an initial performance test under § 60.3030(a), beginning on the date 180 days after your final compliance date in table 1 to this subpart.

(2) For each very small municipal waste combustion unit or institutional waste incineration unit for which you use the substitute means of compliance demonstration under § 60.3032, by the date you submit to the Administrator the information required in § 60.3032(b).

■ 77. Amend § 60.3024 by revising the section heading and the introductory text to read as follows:

§ 60.3024 What if I do not use a wet scrubber, dry scrubber, electrostatic precipitator, or fabric filter to comply with the emission limitations?

If you use an air pollution control device other than a wet scrubber, dry scrubber, electrostatic precipitator, or

fabric filter to comply with the emission limitations under § 60.3022, you must petition the EPA Administrator for specific operating limits to be established during the performance test and then continuously monitored thereafter. Additionally, unless you demonstrate continuous compliance according to § 60.3032(d), if you limit emissions in some manner other than an add-on control device to comply with the emission limitations under § 60.3022, such as by material balance, then you must submit a petition for approval of your means of limiting your emissions. You must submit the petition at least 60 days before the performance test is scheduled to begin and not conduct the initial performance test until after the petition has been approved by the EPA. Your petition must include the five items listed in paragraphs (a) through (e) of this section.

* * * * *

§ 60.3025 [Removed and reserved].

■ 78. Remove and reserve § 60.3025.

■ 79. Revise and republish § 60.3027 to read as follows:

§ 60.3027 How do I conduct the initial and annual performance test?

(a) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations.

(b) All performance tests must be conducted using the methods in tables 2 and 2a to this subpart.

(c) All performance tests must be conducted using the minimum run duration specified in tables 2 and 2a to this subpart.

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

(e) EPA Method 3A or 3B of Appendix A to this part or ASME/ANSI PTC 19.10–1981 (incorporated by reference, see § 60.17), in lieu of EPA Method 3B, must be used for gas composition analysis, including measurement of oxygen concentration. EPA Method 3A or 3B of Appendix A to this part or ASME/ANSI PTC 19.10–1981 must be used simultaneously with each method.

(f) All pollutant concentrations, except for opacity, must be adjusted to 7 percent oxygen using Equation 1 in § 60.3076.

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

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

(i) Assemble the sampling train(s) and conduct a conditioning run by collecting between 14 liters per minute (0.5 cubic feet per minute) and 30 liters per minute (1.0 cubic feet per minute) of gas over a 1-hour period. Follow the sampling procedures outlined in section 8.1.5 of EPA Method 26A of Appendix A to this part. For the conditioning run, water can be used as the impinger solution.

(ii) Remove the impingers from the sampling train and replace with a fresh impinger train for the sampling run, leaving the probe and filter (and cyclone, if used) in position. Do not recover the filter or rinse the probe before the first run. Thoroughly rinse the impingers used in the preconditioning run with deionized water and discard these rinses.

(iii) The probe and filter assembly are conditioned by the stack gas and are not recovered or cleaned until the end of testing.

(2) For the duration of sampling, a temperature around the probe and filter (and cyclone, if used) between 120 °C (248 °F) and 134 °C (273 °F) must be maintained.

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

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

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

■ 80. Revise § 60.3028 to read as follows:

§ 60.3028 How are the performance test data used?

You use results of performance tests to demonstrate compliance with the emission limitations in tables 2 and 2a to this subpart.

■ 81. Revise § 60.3030 to read as follows:

§ 60.3030 How do I demonstrate initial compliance with the emission limitations and establish the operating limits?

(a) Except as provided in paragraph (b) of this section, you must conduct an initial performance test, as required under § 60.8, to determine compliance with the emission limitations in table 2 or 2a to this subpart and to establish operating limits using the procedures in § 60.3023 or § 60.3024. The initial performance test must be conducted

using the test methods listed in table 2 or 2a to this subpart and the procedures in § 60.3027. In the event of any conflict between § 60.8 and the provisions of this subpart, the provisions of this subpart shall apply.

(b) For very small municipal waste combustion units and institutional waste incineration units with a capacity less than or equal to 10 tons per day, you must demonstrate initial compliance according to paragraph (a) of this section, unless you comply with the requirements for the substitute means of compliance demonstration requirements in § 60.3032.

(c) For each OSWI unit with a capacity greater than 10 tons per day, as an alternative to conducting a performance test under paragraph (a) of this section for carbon monoxide, you may use a 12-hour rolling average of the 1-hour arithmetic average CEMS data to determine compliance with the emission limitations in tables 2 and 2a to this subpart. The initial performance evaluation required by § 60.3039(b) must be conducted prior to collecting CEMS data that will be used for the initial compliance demonstration.

■ 82. Under the heading “Model Rule—Initial Compliance Requirements”, add § 60.3032 to read as follows:

§ 60.3032 What are the substitute means of compliance demonstration requirements for very small municipal waste combustion units and institutional waste incineration units with capacities less than or equal to 10 tons per day?

Instead of conducting the initial performance test in § 60.3030(a), very small municipal waste combustion units and institutional waste incineration units with capacities less than or equal to 10 tons per day may demonstrate initial compliance according to the requirements in paragraphs (a) through (d) of this section.

(a) For each very small municipal waste combustion unit or institutional waste incineration unit for which you are using the substitute means of compliance demonstration, beginning on the effective date of your state plan approval, or July 1, 2030 whichever date is earlier, you must collect the data in paragraphs (a)(1) through (7) of this section until you meet the requirements in paragraph (b) of this section.

(1) Identity and weight of each waste type (e.g., lbs of paper waste, food waste, wood or yard waste) on a weekly total basis for the date range the information is collected.

(2) Identity and quantities (e.g., flow rate or percentage of operating time) of supplemental fuels burned on a weekly

total basis for the date range the information is collected.

(3) Percentage of total waste burned for each waste type on a weekly average basis for the date range the information is collected.

(4) Temperature indicative of the combustion chamber and description of where temperature is measured. Record this information on a 3-hour rolling average basis for the date range the information is collected.

(5) Hours operated per day for the date range the information is collected.

(6) Charge rate each day in tons per day for the date range the information is collected.

(7) Operating parameter data for any air pollution control devices. For wet scrubbers, include pressure drop across the scrubber or amperage to the scrubber, scrubber liquor inlet flow rate, and scrubber liquor pH at the outlet of the scrubber. For dry scrubbers, include injection rate of each sorbent used. For electrostatic precipitators, include the secondary voltage, secondary amperage, and secondary power. Record this information on a 3-hour rolling average basis for the date range the information is collected.

(b) On or before 3 years after the effective date of state plan approval, or July 1, 2030, whichever is earlier, you must identify the results of a performance test in the EPA's WebFIRE database that is representative for your very small municipal waste combustion unit or institutional waste incineration unit using the criteria in paragraphs (b)(2)(i) through (viii) of this section and submit the information in paragraphs (b)(1) and (2) of this section. You must submit the information following the procedure in paragraph (b)(3) of this section. The performance test may be any test that meets the requirements in paragraph (c) of this section, regardless of location, that is representative of your OSWI unit.

(1) Identify the representative performance test used to demonstrate initial compliance with each very small municipal waste combustion unit or institutional waste incineration unit by submitting the information in paragraphs (b)(1)(i) through (vi) of this section as provided in the EPA's WebFIRE database for the performance test.

(i) Organization.

(ii) Facility.

(iii) City.

(iv) State.

(v) County.

(vi) Submission date.

(2) Describe how the test is representative for your unit, based on the following criteria, using the data

collected as specified in paragraph (a) of this section:

(i) Unit design, including type of unit and any associated air pollution control devices.

(ii) Charge rate.

(iii) Type of operation (batch, continuous, intermittent).

(iv) Combustion temperature and location of temperature measurement.

(v) Type(s) of waste burned.

(vi) Waste profile, as defined in § 60.3078.

(vii) Type and amount of supplemental fuels.

(viii) Similarity of air pollution control devices and operation of the air pollution control devices, if the performance test was conducted on a unit with an air pollution control device.

(3) You must submit the information required in paragraphs (b)(1) and (2) of this section via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. If you wish to assert a CBI claim, submit the information, including information claimed to be CBI, to the EPA following the procedures in paragraphs (b)(3)(i) and (ii) of this section. Clearly mark the part or all of the information that you claim as CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(i) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqps_cbi@epa.gov, and as described above, should include clear CBI markings and be flagged to the attention of the Other Solid Waste Incinerator Units Sector Lead. If

assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqps_cbi@epa.gov to request a file transfer link.

(ii) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer and Other Solid Waste Incinerator Units Sector Lead, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, RTP, NC 27711. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(c) Any performance test used as a representative test in a substitute means of compliance demonstration under paragraph (b) of this section must be conducted according to the initial testing requirements of § 60.3027 and demonstrate initial compliance with the emissions limits in table 2a to this subpart. In addition to the results of the performance test and the information required by § 60.8(f)(2), the performance test report must contain the information in paragraphs (c)(1) through (8) of this section.

(1) Unit design, including type of unit and any associated air pollution control devices.

(2) Charge rate during the test.

(3) Type of operation (batch, continuous, intermittent).

(4) Combustion temperature and location of temperature measurement. The temperature must be recorded continuously for each run of the performance test. The performance test report must also identify the lowest 1-hour average combustion chamber operating temperature.

(5) Types of waste burned during the test.

(6) Waste profile, as defined in § 60.3078, established during the test.

(7) Type and amount of supplemental fuels burned during the test and the timeframe that each supplemental fuel was burned during the test.

(8) If the performance test was conducted on a unit with an air pollution control device, the operating parameter data for the control device must be recorded continuously for each run of the performance test. The performance test report must also identify the lowest or highest, as applicable, 1-hour average for the operating parameter.

(i) For wet scrubbers, the performance test report must include data for pressure drop across the scrubber or amperage to the scrubber, scrubber

liquor inlet flow rate, and scrubber liquor pH at the outlet of the scrubber.

(ii) For dry scrubbers, the performance test report must include data for the injection rate of each sorbent used.

(iii) For electrostatic precipitators, the performance test report must include data for the secondary voltage, secondary amperage, and secondary power.

(d) If there are no results from a performance test that meet the requirements of paragraph (c) of this section that are representative of your OSWI unit, you must demonstrate initial compliance according to the requirements of § 60.3030(a).

■ 83. Revise § 60.3033 to read as follows:

§ 60.3033 How do I demonstrate continuous compliance with the emission limitations and the operating limits?

You must demonstrate continuous compliance according to the requirements in paragraphs (a) through (c) of this section, unless you own or operate a very small municipal waste combustion unit or institutional waste incineration unit with a capacity less than or equal to 10 tons per day. If you own or operate a very small municipal waste combustion unit or institutional waste incineration unit with a capacity less than or equal to 10 tons per day, you must either comply with the requirements in paragraphs (a) and (c) of this section or the requirements in paragraph (d) of this section.

(a) You must conduct an annual performance test for all pollutants in table 2 or 2a to this subpart for each OSWI unit to determine compliance with the emission limitations, except if you own or operate an OSWI unit with a capacity greater than 10 tons per day you are not required to conduct an annual performance test for carbon monoxide. The annual performance test must be conducted using the test methods listed in table 2 or 2a to this subpart and the procedures in § 60.3027.

(b) You must continuously monitor carbon monoxide emissions to determine compliance with the carbon monoxide emissions limitation. Twelve-hour rolling average values, including CEMS data during startup and shutdown as defined in this subpart, are used to determine compliance. A 12-hour rolling average value above the carbon monoxide emission limit in table 2 or 2a to this subpart constitutes a deviation from the emission limitation.

(c) You must continuously monitor the operating parameters specified in § 60.3023(a) through (f) or established under § 60.3024. Three-hour rolling

average values are used to determine compliance with the operating limits, except for bag leak detection system alarm time, unless a different averaging period is established under § 60.3024. A 3-hour rolling average value (unless a different averaging period is established under § 60.3024) above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. For bag leak detection systems, an alarm time of more than 5 percent of the operating time during a 6-month period constitutes a deviation from the operating limit. Operating limits do not apply during performance tests.

(d) For each very small municipal waste combustion unit or institutional waste incineration unit with capacity less than or equal to 10 tons per day, unless you comply with the requirements in paragraphs (a) and (c) of this section, you must comply with the requirements in paragraphs (d)(1) through (3) of this section.

(1) You must maintain the percentage of waste burned in each waste category within ± 15 percent of the percentage of total waste burned on a mass basis as established for that waste category according to the waste profile established under § 60.3023(g). You must demonstrate that the percentage of waste burned in each waste category is maintained within ± 15 percent of the percentage of total waste burned on a mass basis as established for that waste category according to the waste profile established under § 60.3023(g) according to paragraphs (d)(1)(i) through (iii) of this section.

(i) At the end of each calendar quarter, you must determine the mass of waste burned in each waste category for that quarter. You must determine the total waste burned during the quarter by summing the quarterly totals for all the waste categories. You must then determine the amount of waste burned in each waste category as a percentage of the total waste burned on a mass basis by dividing the quarterly total in each waste category by the quarterly total waste burned.

(ii) You must also maintain records as required in § 60.3046(p).

(iii) The values calculated in (d)(1)(i) must be ± 15 percent of the percentage of total waste burned on a mass basis as established for that waste category according to the waste profile established under § 60.3023(g). Failure to maintain the percentage of waste burned in each waste category within ± 15 percent of the percentage established for that waste category in any calendar quarter constitutes a deviation.

(2) If you want to establish new operating parameter limits or establish a different waste profile, you must comply with § 60.3036(b).

(3) You must continuously monitor the operating parameters specified in § 60.3023(b) through (f), as applicable. The total daily charge rate is used to determine compliance with the charge rate limit in § 60.3023(a). For the operating parameters in § 60.3023(b) through (f), determine compliance as described in paragraph (d)(3)(i) or (ii) of this section. Failure to meet the operating parameters specified in § 60.3023(a) through (f) is a deviation.

(i) Three-hour rolling average values are used to determine compliance with the operating parameter limits, unless your unit operates on a batch basis and it is operated for less than three hours.

(ii) If your unit operates on a batch basis, and you operate for less than three hours, compliance with the operating parameter limits is determined by averaging the operating parameter over the length of the batch operation.

■ 84. Revise § 60.3034 to read as follows:

§ 60.3034 By what date must I conduct the annual performance test?

For each OSWI unit that is subject to the annual performance test requirement in § 60.3033(a), you must conduct an annual performance test no later than 14 calendar months following the initial performance test. Conduct subsequent annual performance tests no later than 14 calendar months following the previous annual performance test.

■ 85. Amend § 60.3035 by adding paragraph (d) to read as follows:

§ 60.3035 May I conduct performance testing less often?

* * * * *

(d) For very small municipal waste combustion units and institutional waste incineration units with capacities less than or equal to 10 tons per day demonstrating initial compliance following the substitute means of compliance demonstration requirements in § 60.3032, the requirements in paragraphs (a) through (c) of this section do not apply.

■ 86. Revise § 60.3036 to read as follows:

§ 60.3036 May I conduct a repeat performance test to establish new operating limits?

(a) Yes, you may conduct a repeat performance test at any time to establish new values for the operating limits. The Administrator may request a repeat performance test at any time.

(b) For each very small municipal waste combustion unit or institutional waste incineration unit for which you opt to demonstrate continuous compliance according to the requirements in § 60.3033(d), if you want to establish new operating parameter limits or establish a different waste profile, you must comply with either paragraph (b)(1) or (2) of this section.

(1) You must conduct a new performance test of the unit using the test methods listed in table 2a to this subpart and the procedures in § 60.3027 with a waste stream representative of the new waste profile or under the new operating limits.

(2) You must identify a representative performance test that meets the requirements in § 60.3032(c). You must submit the information in § 60.3032(b)(1) and (2) to the Administrator.

■ 87. Revise § 60.3038(a) to read as follows:

§ 60.3038 What continuous emission monitoring systems must I install?

(a) For each OSWI unit with a capacity greater than 10 tons per day, you must install, calibrate, maintain, and operate continuous emission monitoring systems for carbon monoxide and for oxygen. You must monitor the oxygen concentration at each location where you monitor carbon monoxide.

* * * * *

■ 88. Amend § 60.3039 by revising paragraphs (b) and (c) to read as follows:

§ 60.3039 How do I make sure my continuous emission monitoring systems are operating correctly?

* * * * *

(b) Complete your initial performance evaluation of the continuous emission monitoring systems within 180 days after your final compliance date in table 1 to this subpart.

(c) For initial and annual performance evaluations, collect data concurrently (or within 30 to 60 minutes) using your carbon monoxide and oxygen continuous emission monitoring systems. To validate carbon monoxide concentration levels, use EPA Method 10, 10A, or 10B of Appendix A to this part. Use EPA Method 3A or 3B of Appendix A to this part or ASME/ANSI PTC 19.10–1981 (incorporated by reference, see § 60.17), in lieu of Method 3B, to measure oxygen. Collect the data during each initial and annual evaluation of your continuous emission monitoring systems following the applicable performance specifications in Appendix B to this part. Table 4 to this

subpart shows the required span values and performance specifications that apply to each continuous emission monitoring system.

* * * * *

■ 89. Amend § 60.3041 by revising the section heading and paragraphs (a) and (f) to read as follows:

§ 60.3041 What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems?

(a) Where continuous emission monitoring systems are required, obtain 1-hour arithmetic averages. Except for CEMS data during startup and shutdown as defined in this subpart, the 1-hour arithmetic averages for carbon monoxide must be expressed in parts per million by dry volume corrected to 7 percent oxygen. The CEMS data during startup and shutdown are not corrected to 7 percent oxygen and are measured at stack oxygen content. Use the 1-hour averages of oxygen data from your CEMS to determine the actual oxygen level and to calculate emissions at 7 percent oxygen. Use Equation 2 in § 60.3076 to calculate the 12-hour rolling averages from the 1-hour arithmetic averages.

* * * * *

(f) If continuous emission monitoring systems are temporarily unavailable to meet the data collection requirements, refer to table 4 to this subpart. It shows alternate methods for collecting data when systems malfunction or when repairs, calibration checks, or zero and span checks keep you from collecting the minimum amount of data. Failure to collect required data is a deviation of the monitoring requirements.

■ 90. Revise and republish § 60.3043 to read as follows:

§ 60.3043 What operating parameter monitoring equipment must I install, or what operating parameters must I monitor?

(a) You must install, calibrate (to manufacturers' specifications at the frequency recommended by the manufacturer), maintain, and operate devices (or establish methods) for monitoring the value of the operating parameters used to determine compliance with the operating limits listed in table 3 to this subpart, as applicable. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in table 3 to this subpart at all times. The devices must be positioned to provide a representative measurement of the parameter monitored.

(b) You must install, calibrate (to manufacturers' specifications), maintain, and operate a device or

method for measuring the use of any stack that could be used to bypass the control device. The measurement must include the date, time, and duration of the use of the bypass stack.

(c) If you are using a fabric filter 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 (c)(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. The bag leak sensor(s) must be installed in a position(s) that will be representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment 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 (incorporated by reference, see § 60.17);

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 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 alert automatically an operator when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is observed easily by operating personnel;

(7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter; and

(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(d) If you are required to petition the EPA for operating limits under § 60.3024, you must install, calibrate (to the manufacturers' specifications), maintain, and operate the equipment necessary to monitor compliance with the site-specific operating limits

established using the procedures in § 60.3024.

■ 91. Amend § 60.3046 by revising the introductory text, paragraphs (b) through (e), and (g), and adding paragraphs (o) (p), (q), and (r) to read as follows:

§ 60.3046 What records must I keep?

You must maintain the information specified in paragraphs (a) through (q) of this section, as applicable, for a period of at least 5 years.

* * * * *

(b) Records of the data described in paragraphs (b)(1) through (10) of this section.

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

(2) The combustion chamber operating temperature every 15 minutes of operation.

(3) For each OSWI unit with a wet scrubber, the liquor flow rate to the wet scrubber inlet; pressure drop across the wet scrubber system or amperage to the wet scrubber; and liquor pH at the outlet of the wet scrubber, every 15 minutes of operation.

(4) For each OSWI unit with a dry scrubber, the injection rate of each sorbent, every 15 minutes of operation.

(5) For each OSWI unit with an electrostatic precipitator, the secondary voltage, secondary current, and secondary electric power, every 15 minutes of operation.

(6) For each OSWI unit with a fabric filter, the date, time, and duration of each alarm; the times corrective action was initiated and completed; and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the alarm sounds, calculated as specified in § 60.3023(f).

(7) For OSWI units that establish operating limits for controls under § 60.3024, you must maintain data collected for all operating parameters used to determine compliance with the operating limits.

(8) For OSWI units that use a carbon monoxide CEMS, all 1-hour average concentrations of carbon monoxide and oxygen.

(9) All 12-hour rolling average values of carbon monoxide emissions, corrected to 7 percent oxygen (except during periods of startup and shutdown), and all 3-hour rolling average values of continuously monitored operating parameters, and total daily charge rates, as applicable.

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

(c) Records of the start date and time and duration in hours of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment and description of the malfunction.

(d) 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.

(e) Start date, start time, and duration in hours for each period for which monitoring data show a deviation from the carbon monoxide emissions limit in table 2 or 2a to this subpart, a deviation from the operating limits in table 3 to this subpart, or a deviation from other operating limits established under § 60.3024. Include a description of the deviation, reasons for the deviation, and a description of corrective actions taken. You must record the start date, start time, and duration in hours for each period when all qualified operators were not accessible in accordance with § 60.3020.

* * * * *

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

* * * * *

(o) If you comply with the substitute means of compliance demonstration requirements in § 60.3032, you must keep the records specified in paragraphs (o)(1) through (3) of this section.

(1) Records of data collected as required in § 60.3032(a)(2).

(2) Copy of the representative performance test used to demonstrate initial compliance; and

(3) Documentation of how the test in paragraph (o)(2) of this section is representative of the unit as required in § 60.3032(b)(2).

(p) If you comply with the continuous compliance requirements in § 60.3033(d), you must keep records of the following elements:

(1) Start and end times the unit is operated when waste is being combusted.

(2) Total mass of waste burned for each waste category (*i.e.*, identity and weight of each waste category such as solid waste, food waste, wood or yard waste), summed for each calendar quarter.

(3) Total mass of waste burned each calendar quarter.

(4) The amount of waste burned in each waste category as a percentage of total waste burned each calendar quarter.

(5) Waste profile established under § 60.3023(g).

(6) Temperature of unit combustion chamber and description of where temperature is measured, as a 3-hour average for each batch operation.

(7) Charge rate (in tons per day) of each operation.

(8) For each very small municipal waste combustion unit or institutional waste incineration unit with a capacity less than or equal to 10 tons per day using a wet scrubber, dry scrubber, electrostatic precipitator, or fabric filter, the records specified in paragraph (b)(3) through (10) of this section, as applicable.

(9) For each calendar quarter, you must record whether your waste profile meets the requirement in paragraph § 60.3033(d)(1)(iii).

(q) Copies of any notifications submitted pursuant to §§ 60.2993 and 60.3061.

■ 92. Amend § 60.3049 by revising the introductory text to read as follows:

§ 60.3049 What information must I submit following my initial performance test?

Unless you choose to comply with the substitute means of compliance demonstration requirements in § 60.3032, you must submit the information specified in paragraphs (a) through (c) of this section no later than 60 days following the initial performance test. All reports must be signed by the facilities manager.

* * * * *

■ 93. Revise § 60.3050 to read as follows:

§ 60.3050 When must I submit my annual report?

You must submit an annual report no later than 12 months following the submission of the information in § 60.3049, unless you choose to comply with the substitute means of compliance demonstration requirements in § 60.3032. If you choose to comply with the substitute means of compliance demonstration requirements in § 60.3032, you must submit an annual report no later than 12 months following the submission of the information in § 60.3032(b). You must submit subsequent reports no more than 12 months following the previous report. The permit will address the submittal of annual reports for a unit with an operating permit required under title V of the Clean Air Act.

■ 94. Revise and republish § 60.3051 to read as follows:

§ 60.3051 What information must I include in my annual report?

The annual report required under § 60.3050 must include the items listed in paragraphs (a) through (k) of this section. If you have a deviation from the operating limits or the emission limitations, you must also submit deviation reports as specified in §§ 60.3052 through 60.3054.

(a) Company name and address.

(b) Statement by the owner or operator, with their name, title, and signature, certifying the truth, accuracy, and completeness of the report. Such certifications must also comply with the requirements of 40 CFR 70.5(d) or 40 CFR 71.5(d). If your report is submitted via CEDRI, the certifier's electronic signature during the submission process replaces this requirement.

(c) Date of report and beginning and ending dates of the reporting period. You are no longer required to provide the date of report when the report is submitted via CEDRI.

(d) Identification of each OSWI unit, and for each OSWI unit, the parameters monitored and values for the operating limits established pursuant to § 60.3023 or § 60.3024.

(e) If no deviations from any emission limitation or operating limit that applies to you have occurred during the annual reporting period, a statement that there were no deviations from the emission limitations or operating limits during the reporting period. If you use a CMS to monitor emissions or operating parameters and there were no periods during which any CMS was inoperative, inactive, malfunctioning or out of control, a statement that no monitoring system used to determine compliance with the emission limitations or operating limits was inoperative, inactive, malfunctioning or out of control.

(f) The highest recorded 12-hour average and the lowest recorded 12-hour average, as applicable, for carbon monoxide emissions if you are using a CEMS to demonstrate continuous compliance and the highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.

(g) [Reserved].

(h) If a performance test was conducted during the reporting period, identification of the OSWI unit tested, the pollutant(s) tested, and the date of the performance test. Submit, following the procedure specified in § 60.3056(b), the performance test report no later than the date that you submit the annual report.

(i) If you met the requirements of § 60.3035(a) or (b) and did not conduct a performance test during the reporting period, you must state that you met the requirements of § 60.3035(a) or (b), and, therefore, you were not required to conduct a performance test during the reporting period.

(j) The start date, start time, and duration in hours for each period of operation when all qualified OSWI unit operators were unavailable for more than 12 hours, but less than 2 weeks.

(k) If you are complying with the continuous compliance requirements in § 60.3033(d) and have had no deviations from maintaining the percentage of waste burned in each waste category within ± 15 percent of the percentage established for that waste category for each calendar quarter for the reporting period, and the OSWI unit has been operated within the operating parameter limits established during the representative performance test identified in the information submitted as required in § 60.3032(b) or the performance test conducted by the source using the test methods listed in table 2a to this subpart and the procedures in § 60.3027, a statement that there were no deviations from the percentage of waste burned in each category and the OSWI unit has been operated within the established operating parameter limits.

■ 95. Amend § 60.3052 by revising the section heading and paragraph (a) to read as follows:

§ 60.3052 What other reports must I submit if I have a deviation?

(a) You must submit a deviation report as specified in paragraphs (a)(1) through (3) of this section:

(1) If your OSWI unit 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) If your OSWI unit fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any unit that meets the requirements in § 60.2991 and is required to obtain such a permit.

(3) If you deviate from the requirements to have a qualified operator accessible as specified in § 60.3020, you must meet the requirements of § 60.3054.

* * * * *

■ 96. Revise § 60.3053 to read as follows:

§ 60.3053 What must I include in the deviation report?

In each report required under § 60.3052, you must include the company name and address and the beginning and ending dates for the reporting period. For any pollutant or operating parameter that deviated from the emission limitations, operating limits or other requirement specified in this subpart, or for each CMS that experienced downtime or was out of control, include the items described in paragraphs (a) through (g) of this section, as applicable. If you are complying with the continuous compliance requirements in § 60.3033(d), you must also include the items described in paragraphs (h) and (i) of this section. You must identify the OSWI unit, and as applicable, the CMS, associated with the information required in paragraphs (a) through (i) of this section in your deviation report.

(a) Identification of the emission limit, operating parameter or other requirement, except as provided in paragraphs (h) and (i) of this section, from which there was a deviation and the start date, start time, and duration in hours of each deviation.

(b) For each deviation identified in paragraph (a) of this section, the averaged and recorded data for those dates, including, when applicable, the information recorded under § 60.3046(b)(9) and (c) through (e) for the calendar period being reported.

(c) For each deviation identified in paragraph (a) of this section, the cause of each deviation from the emission limitations, operating limits or other requirement and your corrective actions.

(d) For each CMS, the start date, start time, duration in hours, and cause for each instance of monitor downtime (other than downtime associated with zero, span, and other routine calibration checks).

(e) For each CMS, the start date, start time, duration in hours, and corrective action taken for each instance that the monitor is out of control.

(f) The start date, start time, and duration in hours of any bypass of the control device and your corrective actions.

(g) For batch OSWI units, the start date, start time, and duration in hours of any deviation from the requirements to have a qualified operator accessible as required in § 60.3014.

(h) If you are complying with the continuous compliance requirements in § 60.3033(d), you must identify each calendar quarter when your waste profile did not meet the requirements in § 60.3033(d)(1)(iii). For each deviation, you must identify each waste category

that did not meet the percentage requirements, the established percentage of total waste burned on a mass basis for that waste category in your waste profile, and the actual percentage of total waste burned on a mass basis for that waste category during the calendar quarter.

(i) If you are complying with the continuous compliance requirements in § 60.3033(d), for each deviation of an operating parameter limit, identification of the operating parameter from which there was a deviation and the start date, start time, duration in hours, and cause for each deviation from the operating parameter limits established during the representative performance test identified in the information submitted as required in § 60.3032(b) or a performance test of the unit conducted using the test methods listed in table 2a to this subpart and the procedures in § 60.3027 as required in § 60.3030(d) or § 60.3036(b).

■ 97. Revise § 60.3056 to read as follows:

§ 60.3056 In what form can I submit my reports?

(a) You must submit annual and deviation reports electronically or in paper format, postmarked on or before the submittal due dates. Beginning on June 30, 2026, or once the reporting template for this subpart has been available on the Compliance and Emissions Data Reporting Interface (CEDRI) website (<https://www.epa.gov/electronic-reporting-air-emissions/cedri>) for one year, whichever date is later, you must submit all subsequent annual compliance reports and deviation reports using the appropriate electronic report template on the CEDRI website for this subpart and following the procedure specified in paragraph (c) of this section. The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

(b) Beginning on December 29, 2025, within 60 days after the date of completing each performance test or CEMS performance evaluation that includes a relative accuracy test audit (RATA) required by this subpart, you must submit the results following the procedures specified in paragraph (c) of this section. You must submit the report in a file format generated using the EPA's Electronic Reporting Tool (ERT). Alternatively, you may submit an

electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) accompanied by the other information required by § 60.8(f)(2) in portable document format (PDF). If your performance test consists solely of opacity measurements, the results do not need to be submitted in the format generated by the ERT. Instead, you may submit a PDF of the results of the opacity measurements to the EPA via CEDRI.

(c) If you are required to submit reports following the procedure specified in this paragraph (c), you must submit reports to the EPA via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information in the report, you must submit a complete file in the format specified in this subpart, including information claimed to be CBI, to the EPA following the procedures in paragraphs (c)(1) and (2) of this section. Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in this paragraph (c).

(1) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqps_cbi@epa.gov, and as described above, should include clear CBI markings. ERT files should be flagged to the attention of the Group Leader, Measurement Policy Group; all

other files should be flagged to the attention of the Other Solid Waste Incinerator Units Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqps_cbi@epa.gov to request a file transfer link.

(2) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, RTP, NC 27711. In addition to the OAQPS Document Control Officer, ERT files should also be sent to the attention of the Group Leader, Measurement Policy Group, and all other files should also be sent to the attention of the Other Solid Waste Incinerator Units Sector Lead. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(d) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in paragraphs (d)(1) through (7) of this section.

(1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

(2) The outage must have occurred within the period beginning five business days prior to the date that the submission is due.

(3) The outage may be planned or unplanned.

(4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(5) You must provide to the Administrator a written description identifying:

(i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(iii) A description of the measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

(e) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with the reporting requirement. To assert a claim of force majeure, you must meet the requirements outlined in paragraphs (e)(1) through (5) of this section.

(1) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage).

(2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(3) You must provide to the Administrator:

(i) A written description of the force majeure event;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

(iii) A description of the measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(4) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(5) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

■ 98. Amend § 60.3062 by removing and reserving paragraph (b) to read as follows:

§ 60.3062 What is an air curtain incinerator?

* * * * *

(b) [Reserved].

■ 99. Revise § 60.3066(b) to read as follows:

§ 60.3066 What are the emission limitations for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?

* * * * *

(b) The limitations in paragraph (a) of this section apply at all times.

■ 100. Revise § 60.3067(a) to read as follows:

§ 60.3067 How must I monitor opacity for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?

(a) Use EPA Method 9 of Appendix A to this part or ASTM D7520-16 (incorporated by reference, see § 60.17), to determine compliance with the opacity limitation.

* * * * *

■ 101. Revise § 60.3068(d) to read as follows:

§ 60.3068 What are the recordkeeping and reporting requirements for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?

* * * * *

(d) Before December 29, 2025, submit initial and annual opacity test reports as electronic or paper copy on or before the applicable submittal date. On and after December 29, 2025, within 60 days after the date of completing the initial opacity test and each annual opacity test required by this subpart, you must submit the results of the opacity test following the procedures specified in § 60.3056(b).

* * * * *

§ 60.3069 [Removed and reserved].

■ 102. Remove and reserve § 60.3069.

■ 103. Revise § 60.3076(d) to read as follows:

§ 60.3076 What equations must I use?

* * * * *

(d) *Carbon monoxide pollutant rate.* When hourly average pollutant rates (E_h) are obtained (e.g., CEMS values), compute the rolling average carbon monoxide pollutant rate (E_a) for each 12-hour period using the following equation:

Equation 2 to Paragraph (d)

$$E_a = \frac{1}{12} \sum_{j=1}^{12} E_{hj} \quad (\text{Eq. 2})$$

Where:

E_a = Average carbon monoxide pollutant rate for the 12-hour period, parts per million (ppm) corrected to 7 percent O₂. Note that a 12-hour period may include CEMS data during startup and shutdown, as defined in the subpart, in which case the period will not consist entirely of data that have been corrected to 7 percent O₂.

E_{hj} = Hourly arithmetic average pollutant rate for hour "j," ppm corrected to 7 percent O₂. CEMS data during startup and shutdown, as defined in the subpart, are not corrected to 7 percent oxygen, and are measured at stack oxygen content.

■ 104. Amend § 60.3078 by:

■ a. Revising the definition of "Administrator";

■ b. Adding the definition of "CEMS data during start up and shutdown";

■ c. Removing the definition of "Collected from";

■ d. Revising the definitions of "Deviation", "Low-level radioactive waste", "Modification or modified unit", "Particulate matter", and "Reconstruction";

■ e. Adding the definitions of "Rudimentary combustion device" and "Small, remote incinerator";

■ f. Revising the definition of "Very small municipal waste combustion unit"; and

■ g. Adding the definition of "Waste profile".

The revisions and additions read as follows:

§ 60.3078 What definitions must I know?

* * * * *

Administrator means:

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

(2) For Federal section 111(d)/129 plans, the Administrator of the EPA, an employee of the EPA, the Director of the state air pollution control agency, or employee of the state air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task; and

(3) For NSPS, the Administrator of the EPA, an employee of the EPA, the Director of the state air pollution control agency, or employee of the state air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task.

* * * * *

CEMS data during startup and shutdown means CEMS data collected

during the first hours of a OSWI startup from a cold start until waste is fed to the unit and the hours of operation following the cessation of waste material being fed to the OSWI during a unit shutdown. For each startup event, the length of time that CEMS data may be claimed as being CEMS data during startup must be 48 operating hours or less. For each shutdown event, the length of time that CEMS data may be claimed as being CEMS data during shutdown must be 24 operating hours or less.

* * * * *

Deviation means any instance in which a unit that meets the requirements in § 60.2991, or an owner or operator of such a source:

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

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any unit that meets requirements in § 60.2991 and is required to obtain such a permit.

* * * * *

Low-level radioactive waste means waste material that contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable Federal or state standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or byproduct material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

* * * * *

Modification or modified unit means an incineration unit that meets one of two criteria:

(1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the unit (not including

the cost of land) updated to current costs (current dollars). For an OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.

(2) Any physical change in the unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

* * * * *

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

* * * * *

Reconstruction means rebuilding an incineration unit where the cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the unit (not including land) updated to current costs (current dollars). For an OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.

* * * * *

Rudimentary combustion device means a combustion device with capacity less than or equal to 10 tons per day that is designed and constructed without one or more of the following elements: (1) a stack, chimney, or pipe designed for the purpose of discharging flue gases from combustion; (2) mechanical draft to provide airflow; (3) burners designed to initiate and/or assist the combustion process, including burners designed to burn supplementary fuel; or (4) an ancillary power supply to operate.

* * * * *

Small, remote incinerator means an incinerator that combusts 3 tons per day or less of municipal-type solid waste and is more than 25 miles driving distance to the nearest municipal solid waste landfill.

* * * * *

Very small municipal waste combustion unit means any municipal waste combustion unit and small remote incinerator, as defined in this subpart, that has the capacity to combust less than 35 tons per day of municipal solid waste or refuse-derived fuel, as determined by the calculations in § 60.3076. As of December 29, 2025 small remote incinerators are considered very small municipal waste combustion units.

* * * * *

Waste profile means, for a very small municipal waste combustion unit or institutional waste incineration unit with a capacity less than or equal to 10 tons per day, the amount of each waste category burned as a percentage of total waste burned on a mass basis.

* * * * *

■ 105. Revise tables 1 and 2 to subpart FFFF of part 60 to read as follows:

Table 1 to Subpart FFFF of Part 60—Model Rule—Compliance Schedule

As stated in § 60.3000, you must comply with the following:

Complete this action	By this date ^a
Final compliance ^b	(Dates to be specified in state plan). ^c

^a Site-specific schedules can be used at the discretion of the state.

^b Final compliance means that you complete all process changes and retrofit of control devices so that, when the incineration unit is brought on line, all process changes and air pollution control devices necessary to meet the emission limitations operate as designed.

^c The date can be no later than 3 years after the effective date of state plan approval or July 1, 2030, whichever is earlier.

Table 2 to Subpart FFFF of Part 60—Model Rule—Emission Limitations for That Apply to OSWI Units With Capacities Greater Than 10 Tons per Day

As stated in § 60.3022, you must comply with the following:

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
1. Cadmium	18 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of Appendix A to this part.
2. Carbon monoxide	40 parts per million by dry volume.	3-run average (1 hour minimum sample time per run during performance test), and 12-hour rolling averages measured using CEMS ^b .	Method 10, 10A, or 10B of Appendix A to this part and CEMS.
3. Dioxins/furans (total basis).	33 nanograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 23 of Appendix A to this part.
4. Hydrogen chloride	15 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 26A of Appendix A to this part.
5. Lead	226 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of Appendix A to this part.
6. Mercury	74 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of Appendix A to this part.

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
7. Opacity	10 percent	6-minute average (observe over three 1-hour test runs; <i>i.e.</i> , thirty 6-minute averages).	Method 9 of Appendix A to this part, or ASTM D7520–16 (incorporated by reference (IBR), see § 60.17), if the following conditions are met: 1. During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520–16, you or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand). 2. You must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520–16. 3. You must follow the recordkeeping procedures outlined in § 63.10(b)(1) of this subchapter for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination. 4. You or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of any one reading and the average error must not exceed 7.5 percent opacity.
8. Oxides of nitrogen	103 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 7, 7A, 7C, 7D, or 7E of Appendix A to this part, or ASME/ANSI PTC 19.10–1981 (IBR, see § 60.17) in lieu of Methods 7 and 7C only.
9. Particulate matter	0.013 grains per dry standard cubic foot.	3-run average (1 hour minimum sample time per run).	Method 5 or 29 of Appendix A to this part.
10. Sulfur dioxide	3.1 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 6 or 6C of Appendix A to this part, or ASME/ANSI PTC 19.10–1981 (IBR, see § 60.17) in lieu of Method 6 only.

^a All emission limitations (except for opacity and CEMS data during startup and shutdown) are measured at 7 percent oxygen, dry basis at standard conditions. CEMS data during startup and shutdown are measured at stack oxygen content.

^b Calculated each hour as the average of the previous 12 operating hours.

■ 106. Add new table 2a to subpart FFFF of part 60 to read as follows:

**Table 2a to Subpart FFFF of Part 60—
Model Rule—Emission Limitations That
Apply to OSWI Units With Capacities
Less Than or Equal to 10 Tons per Day
On or After [Date To Be Specified in
State Plan] ^a**

As stated in § 60.3022, you must comply with the following:

For the air pollutant	You must meet this emission limitation ^b	Using this averaging time	And determining compliance using this method
1. Cadmium	2,000 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of Appendix A to this part.
2. Carbon monoxide	220 parts per million by dry volume.	3-run average (1 hour minimum sample time per run during performance test), and 12-hour rolling averages measured using CEMS ^c .	Method 10, 10A, or 10B of Appendix A to this part and CEMS.
3a. Dioxins/furans (total mass basis) ^d .	4,700 nanograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 23 of Appendix A to this part.
3b. Dioxins/furans (toxic equivalency basis) ^d .	86 nanograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 23 of Appendix A to this part.
4. Hydrogen chloride	500 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 26A of Appendix A to this part.
5. Lead	32,000 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of Appendix A to this part.
6. Mercury	69 micrograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 29 of Appendix A to this part.

For the air pollutant	You must meet this emission limitation ^b	Using this averaging time	And determining compliance using this method
7. Opacity	10 percent	6-minute average (observe over three 1-hour test runs; <i>i.e.</i> , thirty 6-minute averages).	Method 9 of Appendix A to this part, or ASTM D7520–16 (IBR, see § 60.17), if the following conditions are met: 1. During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520–16, you or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand). 2. You must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520–16. 3. You must follow the recordkeeping procedures outlined in § 63.10(b)(1) of this subchapter for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination. 4. You or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of any one reading and the average error must not exceed 7.5 percent opacity.
8. Oxides of nitrogen	210 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 7, 7A, 7C, 7D, or 7E of Appendix A to this part, or ASME/ANSI PTC 19.10–1981 (IBR, see § 60.17) in lieu of Methods 7 and 7C only.
9. Particulate matter	280 milligrams per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Method 5 or 29 of Appendix A to this part.
10. Sulfur dioxide	130 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Method 6 or 6C of Appendix A to this part, or ASME/ANSI PTC 19.10–1981 (IBR, see § 60.17) in lieu of Method 6 only.

^a The date can be no later than 3 years after the effective date of state plan approval or July 1, 2030, whichever is earlier.

^b All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions. CEMS data during startup and shutdown are measured at stack oxygen content.

^c Calculated each hour as the average of the previous 12 operating hours.

^d For dioxins/furans, you must meet either the total mass basis limit or the toxic equivalency basis limit.

■ 107. Revise tables 3, 4 and 5 to subpart FFFF of part 60 to read as follows:

**Table 3 to Subpart FFFF of Part 60—
Model Rule—Operating Limits for
Incinerators**

As stated in § 60.3023, you must comply with the following:

For these operating parameters	You must establish operating limits	And monitoring using these minimum frequencies		
		Data measurement	Data recording	Averaging time
1. Charge rate	Maximum charge rate	Periodic	For batch units, each batch. For continuous or intermittent units, every hour.	Daily for batch units or units complying with § 60.3033(d). 3-hour rolling for continuous and intermittent units. ^a
2. Combustion temperature	Minimum combustion chamber operating temperature.	Continuous	Every 15 minutes	3-hour rolling. ^a
3. Pressure drop across the wet scrubber or amperage to wet scrubber.	Minimum pressure drop or amperage.	Continuous	Every 15 minutes	3-hour rolling. ^a
4. Wet scrubber liquor flow rate	Minimum flow rate at inlet to the scrubber.	Continuous	Every 15 minutes	3-hour rolling. ^a
5. Wet scrubber liquor pH	Minimum pH at scrubber outlet ...	Continuous	Every 15 minutes	3-hour rolling. ^a
6. Dry scrubber sorbent injection ..	Minimum injection rate of each sorbent.	Continuous	Every 15 minutes	3-hour rolling. ^a
7. Electrostatic precipitator secondary electric power.	Minimum secondary electric power, calculated from the secondary voltage and secondary current.	Continuous	Every 15 minutes	3-hour rolling. ^a
8. Bag leak detection system alarm time.	Alarm time <5 percent of the operating time during a 6-month period.	Continuous	Each date and time of alarm start and stop.	Calculate alarm time as specified in § 60.3023(f).
9. Waste profile	The amount of each waste category burned as a percentage of total waste burned on a mass basis.	Periodic	For batch units, each batch. For continuous or intermittent units, every hour.	Calendar quarter.

^a Calculated each hour as the average of the previous 3 operating hours.

**Table 4 to Subpart FFFF of Part 60—
Model Rule—Requirements for
Continuous Emission Monitoring
Systems (CEMS)**

As stated in § 60.3039, you must comply with the following:

For the following pollutants	Use the following span values for your CEMS	Use the following performance specifications (P.S.) in Appendix B of this part for your CEMS	If needed to meet minimum data requirements, use the following alternate methods in Appendix A of this part to collect data
1. Carbon Monoxide	125 percent of the maximum hourly potential carbon monoxide emissions of the waste combustion unit.	P.S.4A	Method 10.
2. Oxygen	25 percent oxygen	P.S.3	Method 3A or 3B of Appendix A to this part, or ASME/ANSI PTC 19.10–1981 (IBR, see § 60.17)) in lieu of Method 3B only.

**Table 5 to Subpart FFFF of Part 60—
Model Rule—Summary of Reporting
Requirements**

As stated in § 60.3048, you must comply with the following:

Report	Due date	Contents	Reference
1. Initial test report	a. No later than 60 days following the initial performance test.	i. Complete test report for the initial performance test; and. ii. The values for the site-specific operating limits	§ 60.3049. § 60.3049.
2. Waste management plan ..	a. No later than 60 days following the initial performance test.	i. Reduction or separation of recyclable materials; and ii. Identification of additional waste management measures and how they will be implemented	§§ 60.3010 through 60.3012. §§ 60.3010 through 60.3012.
3. Annual Report	a. 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.	i. Company Name and address; ii. Statement and signature by the owner or operator; iii. Date of report; iv. Values for the operation limits; v. If no deviations or malfunctions were reported, a statement that no deviations occurred during the reporting period; vi. Highest and lowest recorded 12-hour averages, as applicable, for carbon monoxide emissions and highest and lowest recorded 3-hour averages, as applicable, for each operating parameter recorded for the calendar year being reported; vii. Information for deviations or malfunctions recorded under § 60.3046(b)(6) and (c) through (e); viii. If a performance test was conducted during the reporting period, the results of the test; ix. If a performance test was not conducted during the reporting period, a statement that the requirements of § 60.3035(a) or (b) were met; and x. Documentation of periods when all qualified OSWI unit operators were unavailable for more than 12 hours but less than 2 weeks. xi. For each very small municipal waste combustion unit or institutional waste incineration unit for which you demonstrate continuous compliance according to § 60.3033(d), if no deviations from the percentages established for each waste category according to the waste profile required in § 60.3033(d)(1) and the OSWI unit has been operated within the operating parameter limits, a statement that there were no deviations from the waste profile percentage requirements and the OSWI unit has been operated within the operating parameter limits.	§§ 60.3050 and 60.3051. §§ 60.3050 and 60.3051. §§ 60.3050 and 60.3051. §§ 60.3050 and 60.3051. §§ 60.3050 and 60.3051. §§ 60.3050 and 60.3051. §§ 60.3050 and 60.3051. §§ 60.3050 and 60.3051. §§ 60.3050 and 60.3051. §§ 60.3050 and 60.3051.
4. Emission limitation or operating limit deviation report.	a. By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year.	i. Dates and times of deviation; ii. Averaged and recorded data for those dates; iii. Duration and causes of each deviation and the corrective actions taken. iv. Copy of operating limit monitoring data and any test reports; v. Dates, times, and causes for monitor downtime incidents; vi. Whether each deviation occurred during a period of startup, shutdown, or malfunction; and. vii. Dates, times, and duration of any bypass of the control device.	§§ 60.3052 and 60.3053. §§ 60.3052 and 60.3053. §§ 60.3052 and 60.3053. §§ 60.3052 and 60.3053. §§ 60.3052 and 60.3053. §§ 60.3052 and 60.3053.

Report	Due date	Contents	Reference
5. Qualified operator deviation notification.	a. Within 10 days of deviation	i. Statement of cause of deviation; ii. Description of efforts to have an accessible qualified operator; and iii. The date a qualified operator will be accessible	§ 60.3054(a)(1). § 60.3054(a)(1). § 60.3054(a)(1).
6. Qualified operation deviation status report.	a. Every 4 weeks following deviation	i. Description of efforts to have an accessible qualified operator; ii. The date a qualified operator will be accessible; and iii. Request to continue operation.	§ 60.3054(a)(1). § 60.3054(a)(2). § 60.3054(a)(2).
7. Qualified operator deviation notification of resumed operation.	a. Prior to resuming operation	i. Notification that you are resuming operation.	§ 60.3054(b).

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

[FR Doc. 2025–11446 Filed 6–27–25; 8:45 am]

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inclement weather, maintenance or security emergencies, or special events. Library users can request a permit at: www.loc.gov/visit/photosessions.

(e) *Informal photography for personal use.* Informal photography for personal use does not require a permit or specific permission, provided that all such photography must be conducted consistent with § 702.2 and other applicable regulations in this part.

(f) *Spontaneous photography of matters of public concern.* Spontaneous photography of matters of public concern does not require a permit or specific permission, provided that all such photography must be conducted consistent with § 702.2 and other applicable regulations in this part.

(g) *All other photography.* All other photography requires specific permission from the Library of Congress Office of Communications. This includes, but is not limited to, photography for commercial, promotional, or news purposes via television, online, or other media channels; photography involving significant supplemental equipment; or any photography involving use of the Library name, seal, logo, staff, or collections. Requests for permission must be made at least one week prior to the proposed photography. The Director of Communications, or designee, is authorized to grant or deny permission and may set the conditions under which the photography may take place, including conditions for cancellation. Contact the Office of Communications at news@loc.gov.

(h) *Violations—(1) Immediate termination.* The Library is authorized to immediately terminate any photography on Library premises that disrupts or interferes with other people's safety or access to Library buildings or collections, or otherwise violates this part.

(2) *Barment.* Any individuals or groups who violate any provision of this section may be subject to the penalties described in § 702.14, including removal from Library premises and prohibition from further use of Library facilities.

Dated: March 12, 2026.

Robert R. Newlen,

Acting Librarian of Congress.

[FR Doc. 2026-05430 Filed 3-18-26; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 60 and 62

[EPA-HQ-OAR-2003-0119; FRL-12232-04-OAR]

RIN 2060-AW43

Commercial and Industrial Solid Waste Incineration Units: Temporary-Use Incinerators and Air Curtain Incinerators Used in Disaster Recovery; Rescission of Interim Final Rule

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; rescission of interim final rule.

SUMMARY: The U.S. Environmental Protection Agency (EPA) is rescinding the interim final rule (IFR) titled “Commercial and Industrial Solid Waste Incineration Units: Temporary-Use Incinerators and Air Curtain Incinerators Used in Disaster Recovery.” The IFR added temporary-use provisions that excluded certain commercial and industrial solid waste incineration (CISWI) units from otherwise applicable requirements when used on a temporary basis to combust non-hazardous debris in specified emergency or disaster circumstances. The EPA is rescinding those provisions and intends to address the same subject matter through notice-and-comment rulemaking culminating in a final rule.

DATES: This rule is effective on March 19, 2026.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2003-0119. All documents in the docket are listed on the <https://www.regulations.gov/> website. Although listed, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through <https://www.regulations.gov/>, or in hard copy at the EPA Docket Center, WJC West Building, Room Number 3334, 1301 Constitution Ave. NW, Washington, DC. The Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m. Eastern Standard Time, Monday through Friday. 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: For information about this action, contact Dr. Felica Davis, Waste Management Branch, Natural Resources Division (E143-03), Office of Clean Air Programs, U.S. Environmental Protection Agency, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-4857; and email address: davis.felica@epa.gov.

SUPPLEMENTARY INFORMATION:

Preamble acronyms and abbreviations. Throughout this document the use of “we,” “us,” or “our” is intended to refer to the EPA. We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

ACI air curtain incinerator
 CAA Clean Air Act
 CBI Confidential Business Information
 CFR Code of Federal Regulations
 CISWI commercial and industrial solid waste incineration
 EG Emission Guidelines
 E.O. Executive Order
 EPA Environmental Protection Agency
 FR Federal Register
 IFR interim final rule
 NSPS New Source Performance Standards
 NTTAA National Technology Transfer and Advancement Act
 OMB Office of Management and Budget
 PRA Paperwork Reduction Act
 RFA Regulatory Flexibility Act
 UMRA Unfunded Mandates Reform Act

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Significantly Affect Energy Supply, Distribution, or Use
J. National Technology Transfer and Advancement Act (NTTAA)
K. Congressional Review Act (CRA)

I. General Information

A. Does this action apply to me?

This action applies to owners and operators of commercial and industrial solid waste incineration (CISWI) units (including air curtain incinerators (ACIs)) subject to the New Source Performance Standards (NSPS) (40 CFR part 60, subpart CCCC), Federal Plan (40 CFR part 62, subpart IIIa), or Emissions Guidelines (EG) (40 CFR part 60, subpart DDDD). If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

B. Where can I get a copy of this document and other related information?

In addition to being available in the docket (Docket ID No. EPA-HQ-OAR-2003-0119), an electronic copy of this action will be available on the internet at <https://www.epa.gov/stationary-sources-air-pollution/commercial-and-industrial-solid-waste-incineration-units-ciswi-new>.

II. Background

A. What is the statutory authority for this action?

The Clean Air Act (CAA), and CAA section 129 in particular (42 U.S.C. 7429), provides the statutory authority to issue this action.

B. What rule is being rescinded?

On August 26, 2025, the EPA published an IFR titled “Commercial and Industrial Solid Waste Incineration Units: Temporary-Use Incinerators and Air Curtain Incinerators Used in Disaster Recovery.”¹ The IFR was effective upon publication and provided an opportunity for public comment. The IFR added temporary-use provisions to the CISWI NSPS, EG, and Federal Plan at 40 CFR 60.2041, 40 CFR 60.2556, and 40 CFR 62.14531a, respectively. The temporary-use provisions provided an exclusion from otherwise applicable requirements when a CISWI unit, including an ACI, temporarily combusts non-hazardous debris from a disaster or emergency in specified circumstances. The IFR also included conditions related to the operation of control devices, notifications, and the duration

and scope of the temporary-use exclusion.

III. Why is the EPA rescinding the IFR?

The EPA issued the IFR to ensure that more incinerators were available for recovery efforts before the 2025 hurricane and wildfire disaster seasons arrived.² Now that the 2025 hurricane and wildfire disaster seasons have passed, the immediate near-term context that motivated expedited issuance has changed, and the EPA has determined that it is appropriate to revisit the temporary-use provisions through notice-and-comment rulemaking. Accordingly, the EPA is rescinding the IFR and addressing the same subject matter in a separate notice-and-comment rulemaking. This action is prospective only and does not alter the compliance status of any owner or operator for conduct occurring before the effective date of this final rule.

This rescission removes the IFR amendments and returns the regulatory text to the requirements in effect immediately prior to the IFR. As mentioned above, the EPA is proceeding under a separate proposal published today that will provide the public with an opportunity to submit comments, input and data for EPA’s consideration before the Agency issues a final rule.

IV. Statutory and Executive Order Reviews

Additional information about these statutes and Executive orders can be found at <https://www.epa.gov/laws-regulations/laws-and-executive-orders>.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and therefore was not submitted to the Office of Management and Budget for review. The EPA prepared an Economic Impact Analysis (EIA) for the IFR that is being rescinded in this action. The EIA explained that facilities that elected to use the disaster recovery temporary use provisions were not subject to additional control requirements and, accordingly, the EPA anticipated that there would be no additional compliance costs. The EPA was unable to quantify any overall nationwide cost savings because the Agency could not determine how many units would be subject to, or would elect to use, the temporary use provisions. The EIA also explained that if a disaster made operation of emission controls technically infeasible,

emissions increases could occur but could not be quantified due to uncertainty in the volume and composition of combusted debris. This action rescinds the IFR; therefore, the EPA no longer anticipates the previously unquantified cost and emissions implications associated with the temporary use provisions.

B. Executive Order 14192: Unleashing Prosperity Through Deregulation

This action is not an Executive Order 14192 regulatory action because this action is not significant under Executive Order 12866.

C. Paperwork Reduction Act (PRA)

This action does not impose any new information collection burden under the PRA. This action does not change the information collection requirements.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities.

E. Unfunded Mandates Reform Act of 1995 (UMRA)

This action does not contain an unfunded mandate of \$100 million (adjusted annually for inflation) or more as described in UMRA, 2 U.S.C. 1531–1538 and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any State, local or Tribal governments. Although this action creates an enforceable duty on the private sector, the cost does not exceed \$100 million or more.

F. Executive Order 13132: Federalism

This action 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.

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

This action does not have Tribal implications as specified in Executive Order 13175. This rule will implement revisions to the compliance dates for certain provisions. Thus, Executive Order 13175 does not apply to this action.

¹ 90 FR 41508.

² *Id.* at 41513.

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

Executive Order 13045 directs Federal agencies to include an evaluation of the health and safety effects of the planned regulation on children in Federal health and safety standards and explains why the regulation is preferable to potentially effective and reasonably feasible alternatives. This action is not subject to Executive Order 13045 because it is not a significant regulatory action under section 3(f)(1) of Executive Order 12866, and because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children.

I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

J. National Technology Transfer and Advancement Act (NTTAA)

This action does not involve technical standards; therefore, the NTTAA does not apply.

K. Congressional Review Act (CRA)

This action is subject to the CRA, 5 U.S.C. 801–808, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This is not a major action as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Parts 60 and 62

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

Lee Zeldin,
Administrator.

For the reasons stated in the preamble, the Environmental Protection Agency amends parts 60 and 62 of title 40, chapter I, of the Code of Federal Regulations as follows:

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

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

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

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

§ 60.2041 [Removed and Reserved]

■ 2. Remove and reserve § 60.2041.

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

§ 60.2556 [Removed and Reserved]

■ 3. Remove and reserve § 60.2556.

PART 62—APPROVAL AND PROMULGATION OF STATE PLANS FOR DESIGNATED FACILITIES AND POLLUTANTS

■ 4. The authority citation for part 62 continues to read as follows:

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

Subpart III—Federal Plan Requirements for Commercial and Industrial Solid Waste Incineration Units That Commenced Construction On or Before November 30, 1999

§ 62.14531a [Removed and Reserved]

■ 5. Remove and reserve § 62.14531a.

[FR Doc. 2026–05395 Filed 3–18–26; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 141

[EPA–HQ–OW–2024–0456; FRL–10774–02–OW]

Announcement of Final Regulatory Determinations for Contaminants on the Fifth Drinking Water Contaminant Candidate List

AGENCY: Environmental Protection Agency (EPA).

ACTION: Regulatory determinations.

SUMMARY: The U.S. Environmental Protection Agency (EPA) is announcing final regulatory determinations for nine contaminants listed on the fifth Contaminant Candidate List. Specifically, the Agency is making final determinations not to regulate 2-aminotoluene, cylindrospermopsin, ethoprop, microcystins, molybdenum, permethrin, profenofos, tebuconazole, and tribufos. The Safe Drinking Water Act (SDWA) requires the EPA to make regulatory determinations every five years on at least five unregulated contaminants. A regulatory determination is a decision about

whether or not to begin the process to propose and promulgate a national primary drinking water regulation (NPDWR) for an unregulated contaminant.

DATES: For the purpose of judicial review, the determinations not to regulate in this document are issued as of March 19, 2026.

FOR FURTHER INFORMATION CONTACT: George Gardenier, Standards and Risk Management Division, Office of Ground Water and Drinking Water (Mail Code 4607M), Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460; telephone number: (202) 564–3333; email address: gardenier.george@epa.gov.

SUPPLEMENTARY INFORMATION:

Abbreviations Used in This Document

ATSDR Agency for Toxic Substances and Disease Registry
CCL Contaminant Candidate List
CCL 5 Fifth Contaminant Candidate List
CRL Cancer Risk Level
CSF Cancer Slope Factor
DWI–BW Drinking Water Intake Adjusted for Body Weight
FIFRA Federal Insecticide, Fungicide and Rodenticide Act
HABs Harmful Algal Blooms
HESD Health Effects Support Document
HHRA Human Health Risk Assessment
HRL Health Reference Level
HRRCA Health Risk Reduction Cost Analysis
MRL Minimum Reporting Level
NPDWR National Primary Drinking Water Regulation
NRDC Natural Resources Defense Council
OW Office of Water
PPRTV Provisional Peer-Reviewed Toxicity Value
PWS Public Water System
RD 5 Regulatory Determination 5
RSC Relative Source Contribution
SDWA Safe Drinking Water Act
UCMR Unregulated Contaminant Monitoring Rule
UCMR 3 Third Unregulated Contaminant Monitoring Rule
UCMR 4 Fourth Unregulated Contaminant Monitoring Rule
USEPA United States Environmental Protection Agency
USGS United States Geological Survey

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 - C. Which contaminants did the EPA consider for regulation?
- III. Approach to Identifying and Evaluating Contaminants for Regulatory Determinations

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA-HQ-OAR-2017-0183; FRL-5120-04-OAR]

RIN 2060-AO18

Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Large Municipal Waste Combustors Voluntary Remand Response and Five-Year Review

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The U.S. Environmental Protection Agency (EPA) is finalizing new source performance standards (NSPS) and emission guidelines (EG) for the large municipal waste combustion (MWC) source category. This final rule responds to a voluntary remand of the preceding rule for this source category and announces the results of the non-discretionary review at five-year intervals required by Clean Air Act (CAA) section 129(a)(5), fulfilling the requirements of a consent decree for the source category. The final rule revises the remanded emission limits for cadmium, lead, particulate matter, polychlorinated dibenzodioxins and dibenzofurans, mercury, hydrogen chloride, and sulfur dioxide for all sources subject to the NSPS and EG and the remanded emission limits for nitrogen oxides and carbon monoxide for some sources subject to the EG and all sources subject to the NSPS. This final rule also removes certain startup, shutdown, and malfunction (SSM) exclusions and exemptions. In addition, the EPA is taking this opportunity to streamline regulatory language; revise recordkeeping and reporting requirements; establish electronic notification; reestablish new and existing source applicability dates; eliminate title V requirements for air curtain incinerators that burn only wood waste, yard waste, and clean lumber; close a 2007 proposed reconsideration action; and make certain typographical and technical corrections and clarifications. The EPA estimates this final rule will result in 3,269 tpy reduction in regulated pollutants from existing sources through implementation of the final emission limits.

DATES: This final rule is effective on May 11, 2026. The incorporation by reference (IBR) of certain publications listed in the rule is approved by the

Director of the **Federal Register** as of May 11, 2026.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2017-0183. All documents in the docket are listed at <https://www.regulations.gov>. Although listed, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The EPA does not place certain other material, such as copyrighted material, on the internet; this material is publicly available only as Portable Document Format (PDF) versions accessible only on the EPA computers in the docket office reading room. The public cannot download certain databases and physical items from the docket but may request these items by contacting the docket office at 202-566-1744. The docket office has 10 business days to respond to such requests. With the exception of such material, publicly available docket materials are available electronically at <https://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT: For information about this final rule, contact Ms. Noel Cope, Natural Resources Division, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-2128; and email address: Cope.Noel@epa.gov.

SUPPLEMENTARY INFORMATION:

Preamble acronyms and abbreviations. Throughout this notice the use of “we,” “us,” or “our” refers to the EPA. We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

ANSI American National Standards Institute
 APCD air pollution control device
 ASME American Society of Mechanical Engineers
 ASNCR advanced selective noncatalytic reduction
 ATSDR Agency for Toxic Substances and Disease Registry
 BSER Best system of emission reduction
 CAA Clean Air Act
 CBI Confidential Business Information
 Cd cadmium
 CDX Central Data Exchange
 CEDRI Compliance and Emissions Data Reporting Interface
 CEMS continuous emissions monitoring system
 CFBS circulating fluidized bed scrubber
 CFR Code of Federal Regulations
 CISWI Commercial and Industrial Solid Waste Units
 CO carbon monoxide
 CRA Congressional Review Act

DCOT digital camera opacity technique
 Dscm dry standard cubic meter
 EAV equivalent annualized value
 EG emission guidelines
 EPA Environmental Protection Agency
 ERT Electronic Reporting Tool
 HAP hazardous air pollutant(s)
 HCl hydrogen chloride
 Hg mercury
 HMIWI hospital, medical, and infectious waste incinerators
 ICR Information Collection Request
 LNTTM Low NO_x
 LPL lower predictive limit
 MACT maximum achievable control technology
 MB/RC mass burn rotary combustor
 MB/WW mass burn water wall
 mg milligram
 MSW municipal solid waste
 MWC municipal waste combustor
 NAAQS National Ambient Air Quality Standards
 NAICS North American Industry Classification System
 ng nanogram
 NO_x oxides of nitrogen (nitrogen oxides)
 NRDC Natural Resources Defense Council
 NSPS new source performance standards
 NTTAA National Technology Transfer and Advancement Act
 O₃ Ozone
 OCAP Office of Clean Air Programs
 OTR Ozone Transport Region
 OMB Office of Management and Budget
 Pb lead
 PCDD/PCDF polychlorinated dibenzodioxins and dibenzofurans (dioxins/furans)
 PDF portable document format
 PM particulate matter
 ppm parts per million
 ppmvd parts per million by volume, dry basis
 PRA Paperwork Reduction Act
 PV present value
 QRO Certification for Municipal Solid Waste Combustion Facilities Operator
 RATA relative accuracy test audit
 RDL representative detection level
 RDF/FBC refuse-derived fuel fluidized bed combustor
 RDF/S refuse-derived fuel stoker combustor
 RDF/SS refuse-derived fuel semi-suspension or spreader stoker wet process conversion combustor
 RFA Regulatory Flexibility Act
 RIA Regulatory Impact Analysis
 SCR selective catalytic reduction
 SNCR selective noncatalytic reduction
 SO₂ sulfur dioxide
 SSM startup, shutdown, and malfunction
 tpd tons per day
 tpy tons per year
 µg microgram
 UMRA Unfunded Mandates Reform Act of 1995
 UPL upper prediction limit
 VCS voluntary consensus standards
 WTEA Waste to Energy Association
 XML Extensible Markup Language

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I. General Information

A. Executive Summary

In December 1995, the EPA adopted emissions guidelines (EG) (40 CFR part 60, subpart Cb) and new source performance standards (NSPS) (40 CFR part 60, subpart Eb) for large municipal waste combustors (MWC), which have a combustion capacity of greater than 250 tons per day (tpd) of municipal solid waste (MSW), pursuant to Clean Air Act (CAA) section 129.¹ CAA section 129(a)(5) requires review of these standards at 5-year intervals and, in 2006, the EPA promulgated amendments to the 1995 standards, revising the emission limits and compliance testing provisions to reflect the actual performance achieved by existing MWCs and improvements in CEMS data performance and reliability.²

Following promulgation of the 2006 rulemaking, environmental groups filed a petition for review in the D.C. Circuit challenging the rulemaking. The petitioners challenged the emission limits which the EPA promulgated in 1995. In light of then-recent precedents casting doubt on the soundness of emission limits derived in part from state-issued air permits as the 1995 emission limits for large MWCs were, the EPA sought a voluntary remand of the 2006 rule.³ In its remand motion, the EPA announced its intention to

¹ Note that on February 11, 1991, Subpart Ea was promulgated that applies Standards of Performance to MWCs which commenced construction after December 20, 1989, and on or before September 20, 1994.

² 71 FR 27324 (May 10, 2006).

³ Specifically, the petitioners pointed to a 2004 decision from the D.C. Circuit, which remanded MACT floors established for existing small MWCs derived from state-issued permit limits because the Court found the EPA did not fulfill the requirement of CAA section 129(a)(2) in setting the floors. See *Northeast Maryland Waste Disposal Authority v. EPA*, 358 F.3d 936 (D.C. Cir. 2004). Additionally, the EPA noted in its motion for a voluntary remand that since the time the EPA finalized the 2006 rulemaking, the D.C. Circuit issued three decisions that were relevant to rules promulgated under sections 112 and 129 of the CAA, since the floor setting requirements in section 129 are essentially equivalent to those under section 112. See *Sierra Club v. EPA*, 479 F.3d 875 (D.C. Cir. Mar. 13, 2007) (vacating the EPA's regulations setting national emission standards for brick and clay ceramics kilns under Section 112); *Natural Resources Defense Council v. EPA*, 489 F.3d 1250 (D.C. Cir. June 8, 2007) (vacating the EPA's regulations setting national emission standards under section 112 for hazardous air pollutants from industrial, commercial, and institutional boilers and process heaters and the EPA's regulations under section 129 defining the term "commercial and industrial solid waste incineration unit"); *Natural Resources Defense Council v. EPA*, 489 F.3d 1364 (D.C. Cir. June 19, 2007) (vacating portions of an EPA rule promulgated under CAA section 112 regulating hazardous air pollutants from the manufacture of plywood and composite wood products).

grant the environmental groups' administrative petition to revisit the 1995 emission limits and reevaluate the 2006 rule as necessary to comport with any revisions. The D.C. Circuit issued an order granting the EPA's request for a remand in 2008, which directed the EPA to review its 2006 rulemaking.⁴

In 2024, the EPA proposed to revise the NSPS and EG under CAA section 129 for large MWCs by amending existing standards for the large MWC source category.⁵ The Agency sought comment on additional data, including data on the number of facilities that would require retrofit to meet any emission limits and data to inform the EPA's projections of air pollution control device (ACPD) use by large MWCs. In addition, the EPA sought comment on developments in practices, processes, and control technologies that reduce pollutant emissions.

In 2025, the Agency reopened the comment period for an additional four months to gather additional information on the proposed amendments to the large MWC regulations.⁶ Specifically, the EPA sought additional information and documentation on verifiable historic pollutant emission concentration information (e.g., stack test reports, waste characterization reports and continuous emission monitor records) for large MWCs so that we could further assess the proposed maximum achievable control technology ("MACT") requirements, including operation of the control technologies over time.

In this final rule, the EPA is revising the remanded emission limits for cadmium, lead, particulate matter, polychlorinated dibenzodioxins and dibenzofurans, mercury, hydrogen chloride, and sulfur dioxide for all sources subject to the NSPS and EG and the remanded emission limits for nitrogen oxides and carbon monoxide for some sources subject to the EG and all sources subject to the NSPS. The EPA is also finalizing the following amendments: removal of SSM exclusions and exemptions; streamlined regulatory language; revisions to recordkeeping and reporting requirements; addition of electronic reporting requirements; reestablishment of new and existing source applicability dates; elimination of title V requirements for air curtain incinerators that burn only wood waste, yard waste, and clean lumber and are not located at a major source or subject to title V for

⁴ Order, *Sierra Club v. EPA*, No. 06–1250 (D.C. Cir. filed Feb. 15, 2008).

⁵ 89 FR 4243 (Jan. 23, 2024).

⁶ 90 FR 4708 (Jan. 8, 2025).

other reasons; closing the 2007 proposed reconsideration action; and other technical, typographical, and clarifying corrections to certain provisions in the NSPS and EG.

Following consideration of comments and additional information received on the proposed rule and the reopened comment period, the EPA is revising its reassessment of the MACT floor limits for the EG and NSPS. The EPA is finalizing an approach similar to that in the proposed rule, using separate methodologies for pollutants with stack test data (Cd, Pb, Hg, PM, HCl, and

PCDD/PCDF) and pollutants with CEMS data (or CEMS pollutants) (CO, NO_x, and SO₂). The final limits incorporate new data submitted during the reopened comment period for years 1990 to 1995 in addition to the 2000 to 2009 compliance dataset that the EPA used for the proposed limits.

The EPA estimates that this final rule will result in present value costs of \$330 million at a three percent discount rate and \$210 million at a seven percent discount rate over the 2030 to 2049 time frame, with equivalent annualized values of \$25 and \$28 million per year,

respectively (in 2024 dollars, discounted to 2025).

B. Does this action apply to me?

Regulated entities. This final action applies to large MWCs that combust more than 250 tons per day (tpd) of municipal solid waste (MSW) as defined under CAA section 129(a)(1)(B), to be regulated under title 40 of the Code of Federal Regulations (CFR) part 60, new subparts VVVV and WWWW. Table 1 of this preamble presents categories and entities that this action potentially regulates.

TABLE 1—INDUSTRIAL SOURCE CATEGORIES AFFECTED BY THIS FINAL ACTION

Category	NAICS * code
Solid Waste Combustors and Incinerators	562213
Administration of Air and Water Resource and Solid Waste Management Programs	924110

The EPA does not intend Table 1 of this preamble to be exhaustive but rather to provide a guide for readers regarding entities that this final action likely affects. To determine whether this action affects your facility, you should examine the applicability criteria found in title 40 of the Code of Federal Regulations (CFR), 40 CFR 60.5690 of subpart VVVV and 40 CFR 60.6300 of subpart WWWW. If you have questions regarding the applicability of any aspect of the final subparts to a particular entity, please contact the appropriate person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section of this preamble.

C. Where can I get a copy of this document and other related information?

In addition to the docket, an electronic copy of this final action will be available on the internet. In accordance with 5 U.S. Code (U.S.C.) 553(b)(4), a brief summary of this rule may be found at <https://www.regulations.gov>, Docket ID No. EPA-HQ-OAR-2017-0183. Following signature by the Administrator, the EPA will post a copy of this final action at <https://www.epa.gov/stationary-sources-air-pollution/large-municipal-waste-combustors-lmwc-new-source-performance>. Following publication in the **Federal Register**, the EPA will post the **Federal Register** version and key technical documents at this same website.

D. Judicial Review and Administrative Reconsideration

Under CAA section 307(b)(1), judicial review of this final action is available only by filing a petition for review in

the U.S. Court of Appeals for the D.C. Circuit (“D.C. Circuit”) by May 11, 2026. CAA section 307(b)(2) prohibits a party from challenging this final action separately in any civil or criminal proceedings for enforcement.

CAA section 307(d)(7)(B) further provides that only an objection to a rule or procedure that was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. This section also requires the EPA to reconsider the rule if the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within the period for public comment or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule. Any person seeking to make such a demonstration should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, WJC South Building, 1200 Pennsylvania Ave., NW, Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT SECTION** and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave. NW, Washington, DC 20460.

II. Background

A. What is the statutory authority for this action?

CAA section 129 provides the statutory authority for this action. CAA

section 129(a)(1) requires the EPA to establish NSPS and EG pursuant to CAA sections 111 and 129 for new and existing solid waste incineration units, including “incineration units with capacity greater than 250 tons per day combusting municipal waste.”⁷ This final rule includes a reevaluation of the first-stage technology-based standards established in 1995 pursuant to CAA section 129(a)(2) in response to a voluntary remand by the D.C. Circuit. In addition, this action includes a review of the reevaluated standards pursuant to CAA section 129(a)(5), which requires that the EPA, at five-year intervals review and, “in accordance with [section 129 and section 111],”⁸ revise the standards and the requirements promulgated for a category solid waste incineration units, including large MWC units.

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.”⁹ This level of control is referred to as a maximum achievable control technology (MACT) standard. CAA section 129(a)(4) further directs the EPA to set numeric emission limits for certain pollutants: cadmium (Cd),

⁷ 42 U.S.C. 7429(a)(1)(A)–(B).

⁸ *Id.* 7429(a)(5).

⁹ *Id.* 7429(a)(2).

mercury (Hg), lead (Pb), particulate matter (PM), hydrogen chloride (HCl), sulfur dioxide (SO₂), polychlorinated dibenzodioxins and dibenzofurans (PCDD/PCDF), carbon monoxide (CO), and oxides of nitrogen (NO_x).¹⁰ In addition, the standards “shall be based on methods and technologies for removal or destruction of pollutants” before, during, and after combustion according to CAA section 129(a)(3).¹¹ The EPA has discretion to distinguish among classes, types, and sizes of incinerator units within a category when setting standards.¹²

In promulgating a MACT standard, the EPA must calculate the minimum stringency levels for new and existing solid waste incineration units in a category based on levels of emissions control achieved in practice by the subject units. The minimum level of stringency is called the MACT floor. Different approaches exist for determining the MACT floors for new and existing sources. For new, modified, 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.”¹³ Emissions standards for existing units may be less stringent than standards for new units, provided that the standards “shall not be less stringent than the average emissions limitation achieved by the best performing 12 percent of units in the category.”¹⁴ The MACT floors are the minimum standards that the EPA may consider for a source category. As a part of the “beyond-the-floor” evaluation, however, the EPA may consider standards more stringent than the MACT floor, taking into account the costs, non-air quality health and environmental impacts, and energy requirements of the more stringent controls.

The MACT analysis involves assessing emissions from the best performing units in a source category. The EPA can base this assessment on actual emissions data and other information, such as State regulatory requirements, that enable the EPA to estimate the performance of the regulated units. For each source category, the assessment involves a review of available emissions data and information with an appropriate

accounting for emissions variability. The EPA can use other methods of estimating emissions, provided that the methods can be shown to provide reasonable estimates of the actual emissions performance of a source or sources in practice. Where there is more than one method or technology to control emissions, the analysis may result in several potential regulatory options, one of which the EPA selects as the MACT for each pollutant. Each regulatory option must be at least as stringent as the minimum-stringency floor requirements. The EPA also examines, but is not required to adopt, more stringent beyond-the-floor regulatory options to select the MACT. Based on the EPA’s consideration of the factors outlined in CAA section 129(a)(2), including the costs, any non-air quality health and environmental impacts, and energy requirements, the EPA selects either the MACT floor level of control or a beyond-the-floor level of control as the MACT standard.

CAA section 129(a)(5) requires the EPA to review the NSPS and EG at five-year intervals and, in accordance with CAA sections 129 and 111, revise the NSPS and EG.¹⁵ CAA section 111 contains a similar periodic “review and revise” provision. Specifically, CAA section 111(b)(1)(B) requires that the EPA, except in specified circumstances, review NSPS promulgated under CAA section 111 every eight years and revise the standards if the EPA determines that it is “appropriate” to do so.¹⁶ In light of the explicit reference in CAA section 129(a)(5) to CAA section 111, which directs the EPA to review and revise standards previously promulgated only “if appropriate,” the EPA interprets CAA section 129(a)(5) to likewise require that the EPA review and, if appropriate, revise CAA section 129 standards.

CAA section 129 provides guidance on the criteria relevant to determining whether revising a CAA section 129 standard is “appropriate.” Specifically, CAA section 129(a)(3) states that standards for solid waste incineration units under CAA sections 111 and 129 “shall be based on methods and technologies for removal or destruction of pollutants before, during and after combustion.”¹⁷ This section’s reference to methods and “technologies” supports the inference that the EPA should consider advances in technology, both in terms of effectiveness and costs, as well as the availability of new technologies when determining whether

revising a CAA section 129 standard is “appropriate.” This is the same general approach that the EPA takes in periodically reviewing NSPS promulgated under CAA section 111(b)(1)(B).

CAA section 111(b)(1)(B) directs the EPA to “review and, if appropriate, revise [section 111 NSPS] following the procedure required by this subsection for promulgation of such standards.”¹⁸ Such standards, as defined in section 111(a)(1), are based on “the best system of emission reduction” or BSER, “which (taking into account the cost of achieving such reduction, and any non-air quality and health and environmental impacts and energy requirements) the Administrator determines has been adequately demonstrated.” Because the BSER is generally based on the degree of emission limitation achievable by some type of control technology, in reviewing section 111 NSPS, the EPA evaluates advances in existing control technologies, both in terms of performance and cost, as well as the availability of new technologies. Based on this evaluation, the EPA then determines whether it is appropriate to revise the standard. Similarly, in conducting CAA section 129(a)(5) reviews, the EPA assesses the performance and variability associated with control measures affecting emissions performance at sources in the subject source category (including the installed emissions control equipment), along with developments in practices, processes and control technologies. In addition, associated costs of control technologies are assessed to determine whether it is appropriate to revise the NSPS and EG.

The EPA does not interpret CAA section 129(a)(5), together with CAA section 111, as requiring the Agency to recalculate MACT floors in connection with this periodic review.¹⁹ CAA section 129(a)(5) does not state that the EPA must conduct a MACT floor analysis every five years when reviewing standards promulgated under CAA sections 129 and 111. Had Congress intended the EPA to conduct a new MACT floor analysis every five years, Congress could have said so expressly, either by directly incorporating such a requirement into CAA section 129(a)(5) or by referring to CAA section 129(a)(2) specifically rather than broadly to “this section” (*i.e.*, CAA

¹⁰ *Id.* 7429(a)(4).

¹¹ *Id.* 7429(a)(3).

¹² *Id.* 7429(a)(2).

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.* 7429(a)(5).

¹⁶ *Id.* 7411(b)(1)(B).

¹⁷ *Id.* 7429(a)(3).

¹⁸ *Id.* 7411(b)(1)(B).

¹⁹ 71 FR 27324, 27327–28 (May 10, 2006); 73 FR 72962, 72971–72 (Dec. 1, 2008); 76 FR 15704, 15708 (Mar. 21, 2011); 85 FR 54178, 54182 (Aug. 31, 2020).

section 129)²⁰ and CAA section 111. Moreover, reading CAA section 129(a)(5) to require the EPA to recalculate MACT floors would be inconsistent with Congress' direction that the EPA should revise CAA section 129 standards in accordance with CAA section 111, which provides that such revision should occur only if the EPA determines that it is "appropriate" to do so. This approach would effectively read the reference to CAA section 111 out of CAA section 129(a)(5). Requiring the EPA to recalculate MACT floors would eviscerate the EPA's ability to base revisions to CAA section 129 standards on a determination that it is "appropriate" to revise such standards, as the EPA's only discretion would be in deciding whether to establish a standard that is more stringent than the recalculated floor. The EPA believes that depriving the Agency of any meaningful discretion in this manner is at odds with what Congress intended.

The EPA believes that CAA section 129(a)(5) is best read as conferring discretion to revise as "appropriate" taking into consideration all relevant factors.²¹ The D.C. Circuit's ruling regarding periodic review of hazardous air pollutant (HAP) standards under CAA section 112(d)(6) supports this view.²² Like CAA section 129(a)(2), CAA section 112(d)(2) requires that the initial HAP standards not be less stringent than the MACT floor, and CAA section 112(d)(6) requires that the EPA "review, and revise as necessary" the HAP standards every eight years. The D.C. Circuit has repeatedly rejected arguments that CAA section 112(d)(6) imposes a duty to recalculate the MACT floor²³ and held that the EPA may take

into account factors other than the "non-exhaustive list of considerations" in section 112(d)(6) when deciding whether revision to existing standards is "necessary."²⁴ The Court's rulings on section 112(d)(6) are consistent with our interpretation of sections 129(a)(5) and 111 as providing the EPA discretion to revise, "as appropriate," MACT standards established under sections 129(a)(2) and 111.

For these reasons, the EPA does not recalculate the MACT floor in a section 129(a)(5) review. Rather, as directed by section 129(a)(5), the EPA follows the guidance in sections 111 and 129 and assesses advances in existing control technologies, both in terms of performance and cost, as well as the availability of new technologies, and then, on the basis of this evaluation, the EPA determines whether it is appropriate to revise the NSPS and EG.

B. What is the regulatory background for the large MWC source category, and how do the NSPS and EG regulate emissions from the source category?

In December 1995, the EPA promulgated EG and NSPS for large MWC units pursuant to CAA section 129.²⁵ As stated in section II.A of this preamble, these standards apply to large MWC units that have a combustion capacity greater than 250 tpd of MSW.²⁶ Both the EG and NSPS require compliance with emission limitations that reflect the maximum degree of emissions reductions for specific pollutants (Cd, CO, PCDD/PCDF, HCl, Pb, Hg, NO_x, PM, and SO₂). The 1995 NSPS apply to new large MWC units that commenced construction, were modified, or were reconstructed after September 20, 1994. The 1995 EG apply to existing large MWC units that commenced construction on or before September 20, 1994. The 1995 EG required that owners or operators of affected sources complete emission control retrofits by December 2000. The EPA calculated the impact of floors based, in part, on State issued air permits. These timely completed retrofits at existing large MWC units were highly effective in reducing emissions of most CAA section 129 pollutants from these units. Compared to a 1990 baseline of emissions, the

for *Surface Finishing v. EPA*, 795 F.3d 1, 8, 11 (D.C. Cir. 2015).

²⁴ *La. Envtl. Action Network (LEAN) v. EPA*, 955 F.3d 1088, 1097 (D.C. Cir. 2020).

²⁵ 40 CFR part 60, subpart Cb (EG); 40 CFR part 60, subpart Eb (NSPS).

²⁶ In 1991, the EPA promulgated 40 CFR part 60, subpart Ea, applying standards of performance to MWCs that commenced construction after December 20, 1989, and on or before September 20, 1994. 56 FR 5507 (Feb. 11, 1991).

1995 EG reduced organic emissions (PCDD/PCDF) by more than 99 percent, metal emissions (Cd, Pb, and Hg) by more than 93 percent, and acid gas emissions (HCl and SO₂) by more than 91 percent.²⁷ While the 1995 EG and NSPS also regulate NO_x, the emissions reductions for NO_x were relatively modest compared to those of the other CAA section 129 pollutants.²⁸

In 2006, the EPA promulgated amendments to the 1995 standards after completing a periodic review under CAA section 129(a)(5). The EPA increased the stringency of the Cd and Hg NSPS emission limits based on new compliance test data showing that large MWC units operating with a full set of controls could comply with more stringent limits; similar data were not available when the EPA previously set the NSPS emission limits. The EPA also revised the PCDD/PCDF, Hg, and NO_x EG emission limits and compliance testing provisions to more accurately reflect the actual performance achieved by existing MWCs and their control technologies and to reflect improvements in continuous emissions monitoring system (CEMS) data performance and reliability based on large MWC compliance test data.²⁹ The EPA projected that all large MWCs could meet the 2006 EG emission limits without installing any new control technology.³⁰

Following promulgation of the 2006 final rule, environmental groups challenged the MACT floor limits that the EPA promulgated in 1995 in connection with their challenge to the revised standards, citing a then-recent decision questioning the legality of MACT floors derived in part from State-issued air permits.³¹ In light of this decision and several other relevant decisions regarding the calculation of MACT floors under CAA section 112, the EPA sought a voluntary remand of the 2006 final rule.³² In its remand

²⁷ See memorandum entitled *Emissions from Large MWC Units at MACT Compliance*, June 20, 2002. Walt Stevenson to Docket A-90-45, entered as item A-90-45, VIII-B-11. Available online as Docket ID EPA-HQ-OAR-2003-0072-0048.

²⁸ *Id.*

²⁹ 71 FR 27324 (May 10, 2006).

³⁰ *Id.*

³¹ Specifically, petitioners pointed to a 2004 decision from the D.C. Circuit, which remanded MACT floors established for existing small MWCs derived from state-issued permit limits after finding that the EPA did not fulfill the requirement of CAA section 129(a)(2). See *Ne. Md. Waste Disposal Auth. v. EPA*, 358 F.3d 936 (D.C. Cir. 2004).

³² See *Sierra Club v. EPA*, 479 F.3d 875 (D.C. Cir. 2007) (vacating the EPA's regulations setting national emission standards for brick and clay ceramics kilns under CAA section 112); *NRDC v. EPA*, 489 F.3d 1250 (D.C. Cir. 2007) (vacating the EPA's regulations setting national emission

²⁰ The scope of CAA section 129 further demonstrates why it would be unreasonable to assume that Congress intended the EPA to revise standards at five-year intervals based on a specific standard-setting provision like CAA section 129(a)(2) as opposed to a more general appropriateness standard. For example, CAA section 129(h)(3) separately requires the EPA to promulgate standards to address residual risk (which, unlike MACT, is not a technology-based analysis) if doing so would be required under CAA section 112(f). 42 U.S.C. 7412(h)(3). This review is required eight years after the initial promulgation of CAA section 129 standards. *Id.* 7412(f)(2). An interpretation of "this section" in CAA section 129(a)(5) that incorporates the requirements of all standard-setting provisions in CAA section 129, whether technology-based or risk-based or subject to their own separate review schedule, would be nonsensical.

²¹ See *Michigan v. EPA*, 576 U.S. 743, 752 (2015) (emphasizing that "'appropriate' is 'the classic broad and all-encompassing term that naturally and traditionally includes consideration of all the relevant factors'").

²² *NRDC v. EPA*, 529 F.3d 1077, 1084 (D.C. Cir. 2008).

²³ *Id.*; see also *Ass'n of Battery Recyclers v. EPA*, 716 F.3d, 667, 673-74 (D.C. Cir. 2013); *Nat'l Ass'n*

motion, the EPA announced its intention to grant the environmental groups' administrative petition to revisit the 1995 MACT floors and reevaluate the 2006 final rule as necessary to comport with any revisions.³³ The D.C. Circuit granted the EPA's request for a remand in February 2008.³⁴

In December 2021, another environmental group petitioned in the D.C. Circuit for a writ of mandamus related to the 2008 order granting voluntary remand.³⁵ In January 2022, the same organization also filed a citizen suit under CAA section 304(a)(2), alleging that the EPA failed to carry out a nondiscretionary duty to timely review and, if appropriate, revise emissions standards for large MWCs pursuant to the five-year review provision in CAA section 129(a)(5).³⁶ On November 9, 2023, the D.C. Circuit entered a consent decree requiring the EPA to sign a proposed rule by December 31, 2023, and a final rule by November 30, 2024, to satisfy the EPA's obligations in the citizen suit and mandamus action (*i.e.*, to complete the five-year review and MACT floor reevaluation). The parties later filed a joint stipulation to extend the consent decree deadline for the final rule to December 22, 2025.³⁷

C. What changes did we propose for the large MWC source category?

On January 23, 2024, the EPA proposed revisions to the NSPS and EG for large MWCs to reflect the results of the EPA's reevaluation of the MACT floors, pursuant to the 2008 voluntary remand, and the results of the EPA's five-year review, pursuant to CAA section 129(a)(5).³⁸ The EPA proposed

standards under CAA section 112 for hazardous air pollutants from industrial, commercial, and institutional boilers and process heaters and the EPA's regulations under CAA section 129 defining the term "commercial and industrial solid waste incineration unit"; *NRDC v. EPA*, 489 F.3d 1364 (D.C. Cir. 2007) (vacating portions of an EPA rule promulgated under CAA section 112 regulating hazardous air pollutants from the manufacture of plywood and composite wood products).

³³ In its motion for a voluntary remand, the EPA explained that it intended to "re-analyze the floors in the 1995 rule" and "revisit the data and information used in the 1995 rule, as well as obtain additional data, to determine whether the 1995 floors need to be revised." EPA Motion for Voluntary Remand at 8, *Sierra Club v. EPA*, No. 06–1250 (D.C. Cir. filed Nov. 9, 2007).

³⁴ Order, *Sierra Club v. EPA*, No. 06–1250 (D.C. Cir. filed Feb. 15, 2008).

³⁵ *In re E. Yard Cmty. for Envtl. Justice*, No. 21–1271 (D.C. Cir. filed Dec. 21, 2021).

³⁶ *E. Yard Cmty. for Envtl. Justice v. EPA*, No. 22–cv–0094 (D.C. Cir. filed Jan. 13, 2022).

³⁷ Notice of Lodging of Proposed Consent Decree, *E. Yard Cmty. for Envtl. Justice v. EPA*, No. 22–cv–0094 (D.C. Cir., filed May 23, 2023).

³⁸ 89 FR 4243 (Jan. 23, 2024).

the following with respect to 40 CFR part 60, subparts Cb and Eb:

- Revisions to all existing-source emission limits in the EG, except the existing CO and NO_x limits for two subcategories of combustors, and revisions to all new-source emission limits in the NSPS. With the exception of proposed changes to the NO_x limits, the proposed revisions resulted from the EPA's reevaluation of the MACT floors in response to the 2008 voluntary remand.

- Simultaneously, the EPA conducted a five-year review as required by CAA section 129(a)(5). Based on this review, the EPA proposed NO_x standards that were more stringent than the reevaluated MACT floor emissions limits for NO_x and that were consistent with the recently promulgated Good Neighbor Plan, which set ozone season standards for a significant portion of the large MWC source category.³⁹

- Removal of the alternative percent reduction standards to establish a consistent approach to compliance for all facilities and removal of the NO_x emissions averaging allowance for existing sources.

- Removal of the SSM exclusions and exemptions and significant revisions to the monitoring provisions during these periods. For NO_x, SO₂, and CO, where a CEMS continuously measures the pollutant concentration, we proposed to eliminate the exclusions of periods of SSM from CEMS data averaging calculations present in the 1995 large MWC standards and instead require a monitoring and compliance demonstration approach used in the more recent CAA section 129 rulemaking for commercial and industrial solid waste units (CISWI) NSPS and EG.⁴⁰

- Conversion of the 1995 large MWC regulatory text describing emission standards and performance testing requirements from paragraphs into tables to facilitate easier implementation and understanding of the requirements.

- Requiring source owners and operators to submit electronic copies of required performance test reports, performance evaluation reports, semiannual compliance reports, and annual reports through the EPA's Central Data Exchange (CDX), using the Compliance and Emissions Data Reporting Interface (CEDRI), to increase the usefulness of the data contained in those reports and to improve availability and transparency of data.

- Reestablishing new and existing source applicability so that large MWC

units currently subject to the 2006 NSPS would become "existing" sources under the proposed amended standards and would be required to meet the revised EG by the applicable compliance date for the revised guidelines. Large MWC units that commence construction after the date of the proposal or commence a modification on or after the date six months after promulgation of the amended standards would be "new" units subject to the more stringent NSPS emission limits.

- Eliminating the regulatory title V permitting requirement for air curtain incinerators that burn only wood waste, yard waste, and clean lumber and are not located at a major source or subject to title V for other reasons.

- Other technical amendments, including closing a 2007 proposed reconsideration action, correcting certain typographical errors, making certain technical corrections, and clarifying certain provisions in the NSPS and EG.⁴¹

D. What outreach did we conduct following the proposal?

In developing this final rule, the EPA conducted post-proposal outreach activities with communities, States, local governments, industry, and Tribes. On January 11, 2024, the EPA emailed a consultation letter to Tribal nations explaining how to comment on the proposed rulemaking and how to request consultation with the EPA. The EPA participated in the National Tribal Air Association monthly meeting on January 25, 2024. On January 16, 2024, the EPA presented details of the large MWC proposal to members of interested communities and environmental organizations. Additionally, the EPA held an informational webinar with air pollution control agencies on February 29, 2024. The EPA's outreach activities also included meetings with the following: Waste-to-Energy Association (WTEA) to discuss varying aspects of the proposal, including waste variability, Reworld Waste (formerly Covanta) to discuss their concerns about the proposed emission limits, compliance implications, and costs of the proposal, and a coalition of community representatives and organizations to discuss their concerns about the rulemaking and impacts of air pollution near large industrial facilities. The EPA subsequently reopened the comment period on the proposed amendments to the large MWC regulations for an additional 4 months, from January 16, 2025, to May 30, 2025,

³⁹ 88 FR 36654 (June 5, 2023).

⁴⁰ 81 FR 40956 (June 23, 2016).

⁴¹ 72 FR 13016 (Mar. 20, 2007).

to gather additional information and documentation.

III. What is included in these final rules?

In this action, we are finalizing decisions and revisions for the NSPS and EG for large MWC units. We discuss the significant comments on the proposal and changes the EPA made to the final NSPS and EG in more detail in section IV of this preamble. A comment summary and the EPA's responses are available in the docket.⁴²

This final rule sets out the EPA's determinations resulting from our reevaluation of the 1995 MACT floor standards for large MWCs pursuant to the 2008 voluntary remand and from our five-year review of large MWC standards under CAA section 129(a)(5), as well as the final amendments to the large MWC NSPS and EG based on those determinations. This action also finalizes other changes to the NSPS and EG largely as proposed, including the following: removal of SSM exclusions and exemptions; streamlined regulatory language; revisions to recordkeeping and reporting requirements; addition of electronic reporting requirements; reestablishment of new and existing source applicability dates; elimination of title V requirements for air curtain incinerators that burn only wood waste, yard waste, and clean lumber and are not located at a major source or subject to title V for other reasons; closing the 2007 proposed reconsideration action; and other technical, typographical, and clarifying corrections to certain provisions in the NSPS and EG.

The EPA is finalizing the amendments as new subparts VVVV (Standards of Performance for Large Municipal Waste Combustors) and WWWW (Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before January 23, 2024), in lieu of revising existing subparts Cb (Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before September 20, 1994) and Eb (Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996). As proposed, we are reserving (removing

without replacing) subpart Ea (NSPS limits for units constructed after December 20, 1989, and on or before September 20, 1994). Although we proposed to promulgate amendments as revisions to subparts Cb and Eb, the EPA has determined that creating new subparts will lessen confusion for affected sources and implementing agencies. Therefore, we have created new subparts for the NSPS and EG at 40 CFR part 60, subparts VVVV and WWWW, respectively, which will replace subparts Cb, Ea, and Eb once facilities are required to comply with the new subparts. The revised standards and new subparts will become effective May 11, 2026. For the EG, States must submit revised State plans to the EPA within one year after promulgating the amendments, by March 10, 2027. Existing large MWC units must demonstrate compliance with the updated standards as expeditiously as practicable after approval of a State plan, but no later than three years after the date of approval of a State plan or five years after promulgation of the revised standards, whichever is earlier. For NSPS, new sources must be in compliance with the updated standards within six months from promulgation, by September 10, 2026, or upon startup, whichever is later.

By incorporating these amendments as new subparts, we hope to alleviate confusion that may arise from significant amendments to the current subpart Cb and subpart Eb regulatory text. For example, to support making the format and structure of the regulations more understandable based on Federal Plain Language Guidelines, we are moving the requirements in subparts Cb and Eb to subparts VVVV and WWWW. Additionally, by creating new subparts VVVV and WWWW, we can omit transitional regulatory requirement language and have a single applicability date (*i.e.*, January 23, 2024) for the new subparts, upon which applicability of subparts Cb, Ea, and Eb ends and a single subpart, WWWW, apply to all the current, operating large MWCs. (We provide additional information on the effective and compliance dates of the final rule in section III.D of this preamble.) Finally, to better accommodate potential future updates to the regulations, in subparts VVVV and WWWW, we are numbering sections in increments of five to support adequate numeric spacing to revise or add new regulatory text sections if needed.

A. What are the final rule amendments based on the response to the voluntary MACT floor remand and five-year review for the large MWC source category?

1. Emission Limits

In the proposed rule, the EPA presented amendments resulting from its reevaluation of the 1995 large MWCs MACT standards undertaken pursuant to the D.C. Circuit's 2008 voluntary remand and the EPA's five-year review of large MWC standards, undertaken pursuant to CAA section 129(a)(5). Based on the EPA's reevaluation of the MACT floors and beyond-the-floor options and review of the standards and requirements, the EPA proposed revised limits at the MACT floor for all covered pollutants except for NO_x, for which the EPA proposed to implement more stringent emission standards as a result of the five-year review.

Following consideration of comments, input from stakeholder meetings, and additional data received post-proposal, the EPA revised its initial reevaluation of the 1995 MACT floors and is finalizing recalculated emission limits.⁴³ Specifically, for the EG, the EPA is finalizing newly revised emission limits for all pollutants, except for the CO and NO_x limits for two categories and subcategories of combustors, respectively. The revised limits reflect the MACT floor reevaluation results rather than the results of the five-year review. For the NSPS, the EPA is finalizing revised reevaluated MACT emission limits for all pollutants except NO_x, which will retain the proposed five-year review limit for new sources.⁴⁴

Tables 2 and 3 of this preamble present the final EG and NSPS emission limits for large MWCs, respectively. For comparison, the table presents current emission limits (from the 2006 rule) for both existing and new units as well. The EPA assessed NO_x and CO limits by subcategories, determined based on combustor type, including mass burn waterwall (MB/WW), mass burn rotary combustor (MB/RC), refuse-derived fuel stoker (RDF/S), RDF spreader stoker fixed floor/100 percent coal capable and RDF semi-suspension/wet RDF process

⁴² Summary of Public Comments and Responses for Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Large Municipal Waste Combustors Voluntary Remand Response and 5-year Review ("Comment Response Document"), Docket ID No. EPA-HQ-OAR-2017-0183.

⁴³ As explained in sections IV.A.3 and IV.A.4 of this preamble, the EPA received additional emissions test data from the 1990–1995 period during the original comment period and the supplemental 2025 comment period that bolstered the dataset available for reanalysis of the MACT floors.

⁴⁴ See section IV of this preamble for rationale for these revisions and summarized comments and responses on this topic.

conversion (RDF/SS), and RDF/
fluidized bed combustion (RDF/FBC).⁴⁵

TABLE 2—COMPARISON OF EXISTING SOURCE LIMITS FOR 2006 LARGE MWC RULE AND THE FINAL EMISSION LIMITS FOR EXISTING SOURCES

Pollutant	Units (@ 7 percent O ₂)	2006 EG (current) limits	Final subcategory EG limits				
			MB/WW	MB/RC	RDF/S	RDF/SS	RDF/FBC
Cd	µg/dscm	35			10		
Pb	µg/dscm	400			68		
PM	mg/dscm	25			20		
Hg	µg/dscm	50			50		
PCDD/PCDF	ng/dscm (total mass basis)	¹ 30/35			14		
HCl	ppmvd	29			10		
SO ₂	ppmvd	29			22		
NO _x	ppmvd	² 180–250	⁴ 205	150	160	160	⁴ 180
CO	ppmvd	³ 50–250	⁴ 100	110	110	⁴ 250	110

¹ 30 ng/dscm for fabric filter equipped MWC units and 35 ng/dscm for electrostatic precipitator-equipped MWC units.

² Range in limits based on combustor type. MB/WW (205); RDF (250); MB/RC (210); RDF/FBC (180).

³ Range in limits based on combustor type. MB/WW (100); MB/RC (250); RDF/S (200); RDF/SS (250); RDF/FBC (200); modular starved air or modular excess air (50).

⁴ Reevaluated MACT floor limit was less stringent than current limit, so current limit was retained.

TABLE 3—COMPARISON OF NEW SOURCE LIMITS FOR 2006 LARGE MWC RULE AND THE FINAL EMISSION LIMITS FOR NEW SOURCES

Pollutant	Units (@ 7 percent O ₂)	2006 NSPS (current) limits	Final subcategory NSPS limits	
			MB	RDF
Cd	µg/dscm	10	2.3	
Pb	µg/dscm	140	23	
PM	mg/dscm	20	5.1	
Hg	µg/dscm	50	32	
PCDD/PCDF	ng/dscm (total mass basis)	13	11	
HCl	ppmvd	25	7.2	
SO ₂	ppmvd	30	14	
NO _x ¹	ppmvd	150	50	
CO	ppmvd	² 50–150	76	100

¹ NO_x limit based on 50 ppm (24 hour) permitted limit for units currently equipped with selective catalytic reduction (SCR) control devices.

² Range in limits based on combustor type. MB/WW (100); RDF/S (150); Modular starved air or modular excess air (50).

2. MACT Floor Assessment

This final rule fulfills the EPA's reevaluation of the 1995 MACT floors for the large MWC source category pursuant the D.C. Circuit's 2008 voluntary remand of the 2006 large MWC rule, as discussed in section II.B of this preamble. In response to the remand, the EPA explained at proposal that the Agency lacked sufficient data from the time period of the 1995 large MWC rulemaking to now characterize the performance of all units needed to reassess the original MACT floors. The EPA proposed to recalculate the MACT floors for large MWCs based on compliance data from 2000 through 2009 reported for the population of units that were operating at the time of the original EG development (1990), adjusted to account for the installation

of air pollution control devices (APCD) and other improvements that sources made to meet the 1995 standards. The EPA subsequently ranked the best performing units in the source category for each covered pollutant based on the adjusted emissions, analyzed the data to determine the average performance of those units, considered beyond-the-floor options, and established MACT floor emission limits.⁴⁶

Following consideration of comments and additional information received on the proposed rule, the EPA is revising its reassessment of the MACT floor limits for the EG and NSPS. The EPA is finalizing a similar approach as that in the proposed rule, using separate methodologies for pollutants having stack test data (Cd, Pb, Hg, PM, HCl, and PCDD/PCDF) and pollutants having

CEMS data (or CEMS pollutants) (CO, NO_x, and SO₂). However, the final limits incorporate new data submitted for years 1990 to 1995 for unit ranking and UPL determinations, in addition to the 2000 to 2009 compliance dataset that the EPA used for the proposed limits. Considering the unique situation of the MACT reevaluation, the EPA's limited ability to gather multiple years of tests for the top performers from several decades ago, and the high variability of waste that these sources use as fuel, the EPA also has revised the NSPS methodology to account for additional intra-source variability in top performers, instead of relying on a singular test from the 1990s. For each stack test pollutant, the EPA performed a statistical analysis on the annual test averages from the 1990 to 1995 dataset

⁴⁵ The EG contain CO emission limits for two additional subcategories of units that are not found in the NSPS. More recent installations have not

used these designs, and the EPA expects that most new large MWCs will likely be MB/WW.

⁴⁶ See discussion in section III.A.3 of this preamble.

and adjusted averages from the 2000 to 2009 dataset to determine an upper prediction limit (UPL).⁴⁷ For EG limits, the EPA used average annual run data corresponding to the top 12 percent of units, and for NSPS limits, the EPA used run data for the single top performer. For NSPS limits, the EPA also assessed the distribution and variance of 2000 to 2009 test averages for the top performer incorporated this data into the UPL calculation.

For CEMS pollutants (CO, NO_x, and SO₂), the EPA reevaluated MACT floor limits by averaging annual peak CEMS data corresponding to the top performers for each pollutant and applicable subcategory. For NO_x and CO, the EPA calculated separate NSPS limits for only two subcategories, MB (as reflected by MB/WW combustor technology) and RDF. In cases where results were greater (less stringent) than the current large MWC EG limit, the EPA proposed to retain the existing

regulatory limit as the MACT floor limit. While the methodology has not changed from proposal, based on comments and evaluation of the data from the units identified as best performers for CO at proposal, we performed a paired t-test analysis on the best performers for CO and determined that the data reported for Wheelabrator Bridgeport Units #1, #2, and #3 exhibit a different population characteristic from the remainder of the source category, *i.e.*, statistically, there is a significant difference in the CO data reported by the Wheelabrator Bridgeport facility from the CO data reported by all other facilities that is outside the variation we would expect of CO emissions from large MWCs. This indicates that the owner or operator of these units may have reported the data in a different way than requested based on a different understanding of the reporting requirement, resulting in reported CO numbers that were much lower than all other facilities not

because of better operation and lower emissions but because of differently understood reporting requirements. As a result, the EPA removed the CEMS data for these units from the CEMS pollutant calculations. The removal results in a new NSPS CO limit of 76 ppmvd from the proposed NSPS CO limit of 16 ppmvd and an EG SO₂ limit of 22 ppmvd from the proposed EG SO₂ limit of 20 ppmvd. Further discussion of this change from proposal is in section IV of this preamble.

Table 4 of this preamble presents the UPL results and the derived final EG and NSPS MACT floor limits for stack test pollutants. Tables 5 and 6 of this preamble summarize the averages and subsequent MACT floor EG and NSPS limits, respectively, for CEMS pollutants. Additional discussion of the methodology, detailed results, and a copy of the UPL template are available in the docket for this rulemaking.⁴⁸

TABLE 4—LARGE MWC MACT FLOOR EG AND NSPS LIMITS FOR STACK TEST POLLUTANTS

Pollutant	Units (@ 7 percent O ₂)	EG MACT floor calculations		NSPS MACT floor calculations	
		UPL result	MACT floor limit	UPL result	MACT floor limit
Cd	µg/dscm	9.99	10	0.577	¹ 2.3
Pb	µg/dscm	67.86	68	5.33	¹ 23
PM	mg/dscm	19.05	20	5.06	5.1
Hg	µg/dscm	52.67	50	31.60	32
PCDD/PCDF	ng/dscm	13.88	14	10.61	11
HCl	Ppmvd	9.82	10	7.103	7.2

¹ Calculated UPL result was less than three times the representative detection level (RDL), so MACT Floor limit set at the 2 dscm 3*RDL value (2.3 ug/dscm for Cd, 23 ug/dscm for Pb).

TABLE 5—LARGE MWC MACT FLOOR EG LIMITS FOR CEMS POLLUTANTS

Pollutant	Units (@ 7 percent O ₂)	EG MACT floor calculations									
		Average of annual peak CEMS data					MACT floor limit				
		MB/WW	MB/RC	RDF	RDF/SS	RDF/FBC	MB/WW	MB/RC	RDF	RDF/SS	RDF/FBC
SO ₂	ppmvd	21.26					22				
NO _x	ppmvd	226.52	142.25	157.29		290.83	^a 205	150	160		¹ 180
CO	ppmvd	221.44	109.92	102.14	818.90	101.40	^a 100	110	110	¹ 250	110

¹ Calculated limit was less stringent than current limit so kept at current limit.

TABLE 6—LARGE MWC MACT FLOOR NSPS LIMITS FOR CEMS POLLUTANTS

Pollutant	Units (@ 7 percent O ₂)	NSPS MACT floor calculations			
		Average of annual peak CEMS data		MACT floor limit	
		¹ MB	¹ RDF	¹ MB	¹ RDF
SO ₂	ppmvd	13.96		14	
NO _x	ppmvd	130.50	154.46	² 140	^{2 3} 150
CO	ppmvd	75.71	99.03	76	100

¹ The MB/RC, RDF/SS, and RDF/FBC subcategories are representative of unique facilities that likely will not be a design used in any future large MWC units. For the NSPS purposes, it is assumed the overarching MB or RDF subcategories will represent performance of any units built in the future.

⁴⁷ For a more detailed discussion, see section IV.A.4 of this preamble.

⁴⁸ See memorandum entitled *MACT Floor Calculations for Large Municipal Waste Combustor*

Units—Final Rule, Docket ID No. EPA-HQ-OAR-2017-0183.

² These values represent limits that would have resulted if the EPA had selected the MACT floor as its basis for the NSPS NO_x limits; however, the EPA is finalizing the proposed 50 ppmvd NO_x limit for all subcategories based on units currently equipped with SCR control devices.

³ Calculated limit was less stringent than current limit, so current limit would have been retained if the MACT floor were selected.

3. Beyond-the-Floor and Five-Year Review Results and Selection of Emission Limits

Following consideration of comments received on the proposed rule, the EPA is not finalizing the beyond-the-floor and five-year review assessments for the EG as proposed. The final rule uses the MACT floor calculations to establish EG and NSPS limits for existing and new units for all pollutants except for NO_x (which reflect the results of the MACT floor calculations for the EG as well as the results of the five-year review for the NSPS).

For its proposed assessment of beyond-the-floor in the reevaluation of the 1995 standards, the EPA assumed that the beyond-the-floor option for existing sources is the new source MACT floor (emissions control achieved in practice by the best controlled similar unit, as required by CAA section 129(a)(2)) which is more stringent than the existing source MACT floor (an average of a broader range of best performing units, also as required by CAA section 129(a)(2)). To assess additional, currently in-use control options as part of the five-year review pursuant to CAA section 129(a)(5), the EPA evaluated the performance of control measures at large MWC sources (including the installed emissions control equipment), and recent developments in practices, processes, and control technologies, including the recently finalized Good Neighbor Plan rulemaking. The EPA proposed NO_x control technologies consistent with those discussed in the Good Neighbor Plan as five-year review options for consideration. For the other covered pollutants, there are some controls that have been demonstrated on non-MWC combustion sources that could potentially be applied to large MWCs; however, the technical feasibility and cost-effectiveness of these controls when used on large MWCs are highly uncertain at this time.

Following its evaluation of these scenarios, the EPA proposed a 110 ppmvd (24-hour) NO_x limit (which was consistent with the NO_x limit finalized under the Good Neighbor Plan), as the five-year review option for existing units based on the application of advanced selective noncatalytic reduction (ASNCR) or Covanta LNTTM NO_x technologies. The EPA also proposed a NO_x NSPS limit of 50 ppmvd (24-hour), based on the permitted NO_x limit for the only facility

currently using selective catalytic reduction (SCR) technology with an air-to-air heat exchanger providing flue gas reheat prior to entering the SCR reactor to represent the five-year technology review standard for new sources.

Based on the consideration of several factors, including the stay of the Good Neighbor Plan,⁴⁹ the EPA is not finalizing the five-year review limit for NO_x emissions from existing units as proposed. First, the total compliance costs for existing sources to meet the proposed 110 ppmvd NO_x limit is significantly higher than the EPA's estimate in the proposed rule. At proposal, the EPA excluded units expected to be covered by the Good Neighbor Plan from the \$257 million capital cost estimate. Inclusion of the compliance costs for those units significantly increases the total estimated capital cost to \$412 million. These large capital expenditures likely will pose a significant challenge to the large MWC industry. The EPA recognizes that this is a unique industry providing essential public services, with many facilities owned and operated by State or local governments. These large capital expenditures could hinder government funded municipalities' ability to continue to utilize large MWCs for the public MSW disposal needs.

Second, at the same time, emission reductions from the proposed 110 ppmvd NO_x limit likely are much lower than the EPA's estimate at proposal. The EPA estimated baseline NO_x emissions using the average of the available annual peak 24-hour CEMs data from 2000 through 2007. Using the peak values likely overestimates annual emissions by about 30% compared to the 2008 National Emissions Inventory and, in turn, likely overestimates the amount of emission reductions and therefore the cost effectiveness of the proposed NO_x limit.⁵⁰

For these reasons, the EPA is not finalizing the 110 ppmvd limit for NO_x for existing sources and is instead promulgating the re-evaluated MACT floor limits for existing sources discussed in section III.A.2 of this preamble. The EPA is finalizing the 50 ppmvd NO_x limit for new sources as proposed, as there are units operating

that have cost-effectively used SCR to perform at this level for several years, and the EPA sees no technical or economic barriers to future sources doing likewise.

B. What are the final rule amendments addressing emissions during periods of startup, shutdown, and malfunction?

The EPA is finalizing, as proposed, revisions to the SSM provisions of the NSPS and EG in response to the D.C. Circuit's decision in *Sierra Club v. EPA*.⁵¹ This final rule removes the exemption for SSM periods contained in the 1995 large MWC rule so that the emission standards apply at all times. The EPA is not finalizing a separate emission standard for large MWC units during periods of startup and shutdown.⁵²

The EPA notes that on September 5, 2025, the D.C. Circuit held in *SSM Litigation Group v. EPA* that although the EPA has no authority under the CAA to "create a regulatory 'defense' that limits the remedial authority granted by Congress to the Federal courts," a "complete affirmative defense, like the one at issue [in that case], is permissible because it relates to the antecedent question of liability and therefore does not impinge on the judiciary's authority to award 'appropriate civil penalties.'" ⁵³ The EPA is not addressing *SSM Litigation Group* in this action because the LMWC NSPS and EG do not contain affirmative defense provisions. However, the EPA may in an appropriate future action request comment on whether and how we should establish affirmative defense provisions within section 129 regulations in response to the D.C. Circuit's *SSM Litigation Group* decision. As proposed, the emission standards that the EPA is finalizing do not factor emissions that occur during periods of malfunction into the development of the standards. This is consistent with the D.C. Circuit's decision in *U.S. Sugar Corp. v. EPA*,⁵⁴ as explained further below.

The EPA is also finalizing, as proposed, revisions to eliminate the exclusions of periods of warmup, startup, and shutdown from CEMS data averaging calculations and to replace

⁴⁹ See *Ohio v. EPA*, 603 U.S. 279 (2024) (staying the Good Neighbor Plan as likely arbitrary and capricious).

⁵⁰ 2008 National Emissions Inventory (<https://www.epa.gov/air-emissions-inventories/2008-national-emissions-inventory-nei-data>).

⁵¹ 551 F.3d 1019 (D.C. Cir. 2008).

⁵² See the rationale in section IV.B of this preamble.

⁵³ 150 F.4th 593, 599 (D.C. Cir. 2025) (quoting CAA section 304(a), 42 U.S.C. 7604(a)).

⁵⁴ 830 F.3d 579, 606–10 (D.C. Cir. 2016).

them with a monitoring and compliance demonstration approach. The final rule requires that affected sources collect CEMS data and use this data to determine compliance when the large MWC unit is operating. While the large MWC unit is warming up, starting up, or shutting down, CEMS data must be flagged as warmup, startup, or shutdown period data. The final rule requires that affected sources use the CEMS data to calculate rolling or block averages and to average the data as measured instead of applying a seven percent oxygen diluent cap for the warmup period and an allowance of up to three hours of startup or shutdown time per occurrence. Under the final rule, a deviation occurs when an operating combustor does not record monitoring data due to monitor malfunctions.

C. What are the final rule amendments addressing other changes to the large MWC EG and NSPS?

1. Changes to the Applicability Date of the Large MWC EG and NSPS

As noted earlier in section III of this preamble, the EPA is finalizing the amendments as 40 CFR part 60, subparts VVVV (Standards of Performance for Large Municipal Waste Combustors) and WWWW (Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before January 23, 2024), in lieu of revising existing subparts Cb (Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before September 20, 1994) and Eb (Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996).

The EPA is finalizing, as proposed, that large MWC units currently subject to the NSPS are existing sources with respect to the emission standards promulgated in this final rule. Under this final rule, large MWC units that currently are subject to the NSPS at 40 CFR part 60, subparts Ea and Eb will be subject to the revised EG standards at 40 CFR part 60, subpart WWWW through meeting requirements of the relevant approved State or Federal plans. Those sources will continue to be NSPS units subject to the current large MWC NSPS until the sources come into compliance with the requirements of the revised EG standards. The revised EG standards are as stringent as, or more protective than, the 1995 large MWC new source emission limits, as revised in 2006, with

the sole exception of PCDD/PCDF. For the PCDD/PCDF limit, large MWC units that are subject to NSPS subpart Eb but are existing sources under the new EG subpart WWWW remain new sources under NSPS subpart Eb and, as such, must continue to comply with the more stringent NSPS limit (*i.e.*, 13 ng/dscm total mass basis at seven percent oxygen) in NSPS subpart Eb.

Under the final rule, large MWC units that commence construction after January 23, 2024, and units that are modified or reconstructed after September 10, 2026 are new units subject to the NSPS emission limits. Large MWC units that commence construction, reconstruction, or modification prior to those dates would be existing units subject to the revised EG standards under 40 CFR part 60, subpart WWWW. Under the final rule, any large MWC unit that commenced construction on or before January 23, 2024, or that is reconstructed or modified prior to September 10, 2026, remains subject to 40 CFR part 60 subparts Cb, Ea, or Eb, as appropriate, until the unit comes into compliance with the relevant approved State or Federal plan to implement and enforce the revised EG. Large MWC units that commence construction after January 23, 2024, or that are reconstructed or modified on or after September 10, 2026 must meet the revised NSPS emission limits in 40 CFR part 60, subpart VVVV by September 10, 2026, or upon startup, whichever is later.

As stated in the proposal, the EPA intends to “reserve” 40 CFR part 60, subpart Ea NSPS standards once the revised EG emission limits are implemented. Due to the resetting of the “new” and “existing” definitions, any units that meet 40 CFR part 60, subpart Ea applicability would become existing units subject to the new 40 CFR part 60, subpart WWWW once implemented through a relevant State or Federal plan. Additionally, based on changes the EPA has made since proposal to introduce the new subparts to 40 CFR part 60 for large MWC regulations, once all existing units are in compliance with the requirements of 40 CFR part 60, subpart WWWW through a State or Federal plan, subparts Cb and Eb will no longer be necessary. Therefore, we intend to reserve all three subparts (40 CFR part 60 subparts Cb, Ea, and Eb) in a future action for potential use in a future rulemaking once all large MWC units are in compliance with the requirements of 40 CFR part 60, subpart WWWW through either a State or Federal plan.

2. Changes to Alternative Percent Reduction Standards for Hg, HCl, and SO₂ and Removal of Emissions Averaging Allowance for NO_x

The EPA is not finalizing, as proposed, the removal of the alternative percent reduction standards, including the 85 percent reduction allowed for Hg (NSPS and EG), the 95 percent allowed for HCl (NSPS and EG), and the 80 percent (NSPS) and 75 percent (EG) allowed for SO₂. Instead, after considering public comments and upon further review, we are finalizing recalculated alternative percent reduction standards based on additional removal efficiency data from the years 1990 to 1995 for the best performing units used in the reevaluated MACT standards for Hg, HCl and SO₂.

The EPA is finalizing, as proposed, the removal of the NO_x emissions averaging alternative provided in 40 CFR 60.33b(d)(1) of the existing EG regulation and will not include this provision in subpart WWWW. Once implementation of subpart WWWW occurs, sources will no longer be able to comply with applicable requirements using NO_x emissions averaging.⁵⁵

3. Changes for Optional Continuous Monitoring

The EPA is finalizing, as proposed, the incorporation of new performance specifications for the optional use of PM CEMS, HCl CEMS or Hg CEMS in place of stack testing and for the optional use of multi-metal, PCDD/PCDF CEMS in place of stack tests after promulgation of a performance specification or approval of a site-specific monitoring plan. As discussed in the preamble to the proposed rule, in the 2006 final amendments to the large MWC requirements, the EPA revised the PM and Hg compliance testing requirements to allow the optional use of a PM CEMS or Hg CEMS in place of stack testing and the optional use of multi-metal, HCl, PCDD/PCDF CEMS in place of stack tests after promulgation of performance specifications for these CEMS.⁵⁶ This final rule incorporates promulgated performance specifications (PS), including PS-11 (PM), PS-12A (Hg), and PS-12B (Hg).⁵⁷ These updates do not require a facility that already has an approved site-specific monitoring plan to incorporate these optional CEMS or to obtain reapproval of that plan on that basis. If owners and operators use these optional CEMS for compliance

⁵⁵ See the rationale in section IV.C of this preamble.

⁵⁶ 89 FR 4257 (Jan. 23, 2024); 71 FR 27326 (May 10, 2006).

⁵⁷ Appendix B to Part 60, Title 40.

demonstration purposes, owners and operators must submit these data to the EPA in the same manner as data for the required CEMS pollutants (CO, NO_x, and SO₂).

4. Changes To Streamline Regulatory Text Within the Large MWC EG and NSPS

The EPA is finalizing, with revisions, proposed changes to the regulatory format of the large MWC standards. The final rule converts text describing emission standards and performance testing requirements to tables to facilitate easier implementation and understanding of the requirements. As noted throughout this section of the preamble, the EPA is finalizing the large MWC NSPS and EG as new subparts VVVV (Standards of Performance for Large Municipal Waste Combustors) and WWWW (Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before January 23, 2024), in lieu of revising existing subparts Cb and Eb. The EPA has converted the proposed streamlining changes to the new subparts to reduce potential confusion for affected sources and implementing agencies. The EPA also developed the new final subparts VVVV and WWWW to update the format and structure of the regulations to be more accessible, based on Federal Plain Language Guidelines, and establish section-numbering increments of five to allow for adequate numeric spacing to revise or add new regulatory text sections, if needed, in the future.⁵⁸

5. Closing the 2007 Proposed Reconsideration of the Large MWC EG and NSPS

In 2007, the EPA announced that the Agency would reconsider three aspects of the 2006 final rule in response to requests by stakeholders: (1) operator stand-in provisions, (2) data requirements for continuous monitors, and (3) the status of operating parameters during the two weeks prior to Hg and PCDD/PCDF testing.⁵⁹ In both 2007 and 2024, the EPA proposed that no changes were necessary to resolve the 2007 reconsideration.⁶⁰ As we received no adverse comments on our proposed approach, we are now completing action on this reconsideration by making no changes to these three aspects of the rule.

6. Updating Operator Training Examination Requirements

The final rule updates the citation to and incorporates by reference the American Society of Mechanical Engineers (ASME) Standard for the Qualification and Certification of Resource Recovery Facility Operators (QRO) to reflect 2005 updates made to the QRO by ASME. The rule and text of 40 CFR 60.17(g), 60.5865, and 60.6420 update the citation to this document and incorporate it by reference as QRO-1-2005.

7. Revisions to Title V Permitting Requirements for Air Curtain Incinerators Burning Only Wood Waste, Clean Lumber, and Yard Waste

For air curtain incinerators that burn only wood waste, clean lumber, yard waste and that are not located at a major source or subject to title V for other reasons, the EPA is finalizing, as proposed, removal of the requirement in the 1995 large MWC final rule that air curtain incinerators that burn only wood waste, clean lumber, and yard waste and comply with the opacity limits established under CAA section 129(g)(1)(C) must apply for and obtain a title V operating permit.⁶¹ CAA section 129(e), which requires title V permits for “solid waste incineration units,”⁶² does not apply to these ACI because, as noted in the proposed rule, the definition of “solid waste incineration unit” in CAA section 129(g)(1) “does not include (C) air curtain incinerators [that] only burn wood wastes, yard wastes and clean lumber” and comply with applicable opacity limits.⁶³ CAA section 502(a)⁶⁴ and the EPA’s regulations at 40 CFR 70.3 identify the types of sources that must obtain a title V permit for operation. In particular, title V permitting applies to any major source as defined in 40 CFR 70.2 without exceptions, including ACI that are not solid waste incineration units under CAA section 129(g)(1) but are themselves major sources. Based on available data, ACI that burn exclusively wood waste, clean lumber, and yard waste are commonly located at facilities that are not major sources and would not otherwise require a title V operating permit, such as land clearing operations on public or private land. Further, to the EPA’s knowledge, no large MWC facility operates an ACI that burns exclusively wood waste, clean lumber, and yard

waste on its premises. This final rule clarifies the applicability of title V permitting requirements for ACIs that burn exclusively wood waste, clean lumber, and yard waste or a combination of these materials and comply with the applicable CAA section 129 opacity limitations and related requirements.

8. Electronic Reporting

The EPA is finalizing, as proposed, a requirement that owners and operators of large MWC units submit electronic copies of required performance test reports, performance evaluation reports, semiannual compliance reports, annual reports, and certain notifications through the EPA’s CDX using CEDRI. Owners or operators must submit performance test results collected using test methods that the EPA’s Electronic Reporting Tool (ERT) supports, as listed on the ERT website at the time of the test, and in the format generated through the use of the ERT or an electronic file consistent with the XML schema on the ERT website. Owners or operators must submit other performance test results in PDF format using the attachment module of the ERT.⁶⁵ Owners or operators must submit performance evaluation results of CEMS measuring relative accuracy test audit (RATA) pollutants in the format generated through the use of the ERT or an electronic file consistent with the XML schema on the ERT website, and must submit performance evaluation results in PDF format using the attachment module of the ERT. Owners or operators must submit certain other notifications in CEDRI. For semiannual and annual reports, the final rule requires that owners and operators use the appropriate spreadsheet template to submit information to CEDRI.

The final rule also provides extensions for electronic reporting in two specific circumstances: (1) outages of the EPA’s CDX or CEDRI which preclude an owner or operator from accessing the system and submitting required reports, and (2) force majeure events, which the rule defines as events that have been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevent an owner or operator from complying with the requirement to submit a report electronically.⁶⁶ In both circumstances, the decision to accept

⁵⁸ Federal Plain Language Guidelines: <https://digital.gov/guides/plain-language>.

⁵⁹ 72 FR 13016 (Mar. 20, 2007).

⁶⁰ 72 FR 13016 (Mar. 20, 2007); 89 FR 4257 (Jan. 23, 2024).

⁶¹ 60 FR 65387 (Dec. 19, 1995).

⁶² 42 U.S.C. 7429(e).

⁶³ 89 FR 4258 (Jan. 23, 2024) (quoting 42 U.S.C. 7429(g)(1)).

⁶⁴ 42 U.S.C. 7661a(a).

⁶⁵ See ERT Tool: <https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>.

⁶⁶ See 40 CFR 63.2 (definition of force majeure).

the request for additional time to report is within the discretion of the Administrator, and reporting should occur as soon as possible.

9. Technical and Implementation Corrections

The EPA is finalizing corrections and clarifications to the NSPS and EG that the Agency and stakeholders identified during implementation of the previous regulations as proposed, with minimal revisions to accommodate the new subparts.⁶⁷ Specifically, the EPA includes the proposed clarifications and corrections in the final new subparts VVVV and WWWW and has updated citations and cross-references accordingly.

D. What are the effective and compliance dates of the standards?

The revisions to the NSPS and EG standards that the EPA is promulgating in this action are effective on May 11, 2026.

The EPA is finalizing the compliance dates of the NSPS and EG as proposed. Under the final EG and consistent with CAA section 129(b)(2), revised State plans containing the revised existing source emission limits and other requirements in the proposed amendments are due within one year after promulgation of the amendments. States must submit revised plans to the EPA by March 10, 2027.

The final EG allow existing large MWC units to demonstrate compliance with the amended standards as expeditiously as practicable after approval of a State plan, but no later than three years after 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(b)(2), the EPA expects States to require compliance as expeditiously as practicable. Because we anticipate that several large MWC units will need to retrofit existing emission control equipment and/or install additional emission control equipment to meet the final revised limits, the EPA anticipates that some States may choose to provide the three-year compliance period allowed by CAA section 129(f)(2).⁶⁸

In revising the standards in a State plan, a State may have two options, depending on the performance of the large MWC units in that State. First, a State could include both the 2006 large MWC standards and the new standards in its revised State plan, which would allow a phased approach for applying the new emissions limits. The State plan would clarify that the standards in the 2006 large MWC final rule remain in effect for large MWC units and apply until the compliance date of the revised existing source standards (as defined in the State plan).⁶⁹ Second, a State with existing large MWC units that do not need to improve performance to meet the revised standards could replace the 2006 large MWC final rule standards with the standards in this final rule; follow the procedures in 40 CFR part 60, subpart B and submit a revised State plan to the EPA for approval. If the revised State plan contains only the revised standards (*i.e.*, does not retain the 2006 large MWC final rule standards), the revised standards must be effective immediately for units subject to the 2006 large MWC final rule.

The EPA will revise or replace the existing Federal plan to incorporate changes to the existing source emission limits and other requirements that the EPA is promulgating in this action.⁷⁰ The Federal plan applies to large MWC units in any State without an approved State plan. The final amendments to the EG allow existing large MWC units subject to the Federal plan a maximum of five years after promulgation of the revised standards to demonstrate compliance with the amended standards, as required by CAA section 129(b)(3).

For new sources, the final NSPS requires compliance within six months after promulgation of this final rule, or upon startup of the new MWC, whichever is later. This compliance timeline for new sources is consistent with the requirements of CAA section 129(f)(1).

E. Severability

This final action contains several discrete components, which the EPA

increased use of sorbent that may be needed to comply with the emission limits, but owners will evaluate and use the controls that they determine are necessary for their source.

⁶⁹ All sources currently subject to the 1995 large MWC EG or NSPS will become existing sources once the final revised large MWC standards are in place. See section III.B of this preamble for further discussion.

⁷⁰ See 40 CFR part 62, subpart FFF—Federal Plan Requirements for Large Municipal Waste Combustors Constructed on or before September 20, 1994.

views as severable as a practical matter—*i.e.*, they are functionally independent and operate in practice independently of the other components. These discrete components are generally delineated by the section headings within this section (section III) and section IV of this preamble. For example, the recalculated MACT floor standards, calculated using 1990's data, are severable from the 5-year review standard.⁷¹ Further, each new or existing source standard for a specific pollutant is severable from the new or existing source standard for any other pollutant. The final rule also includes other revisions to the LMWC NSPS and EG that generally function independently of one another (*e.g.*, changes to startup, shutdown malfunction provisions, alternative percentage reduction standards).

IV. What is the rationale for our final decisions and amendments for the large MWC source category?

For each issue, this section describes what we proposed and what we are finalizing, the EPA's rationale for the final decisions and amendments, and a summary of key comments and responses. The EPA solicited comment on the proposed rule from January 23, 2024, to March 25, 2024. Specifically, we gathered general comments, additional data, and information regarding developments in practices, processes, and control technologies that reduce pollutant emissions as well as associated costs, feasibility concerns, and other drawbacks. The EPA subsequently reopened the comment period on the proposal for an additional four months, from January 16, 2025, to May 30, 2025. Specifically, we then gathered additional information and documentation on verifiable historic pollutant emission concentration information (*e.g.*, stack test reports, waste characterization reports and continuous emission monitor records) for the source category so we could further assess the proposed MACT requirements, including operation of the control technologies over time. For all comments that this preamble does not discuss, comment summaries and our responses are available in the comment summary and response document in the docket.⁷²

⁷¹ As discussed in section IV.A.4, the EPA is finalizing one standard (50 ppmvd NO_x limit for new sources) as a result of the 5-year review.

⁷² Docket ID No. EPA-HQ-OAR-2017-0183.

⁶⁷ See memorandum entitled *Proposed Regulation Edits for 40 CFR part 60, subparts Cb and Eb: Review of the Emission Guidelines for Existing Sources and New Source Performance Standards: Large Municipal Waste Combustors Voluntary Remedial Response and 5-year Review*, Docket ID No. EPA-HQ-OAR-2017-0183.

⁶⁸ CAA section 129 does not require or authorize the EPA to specify the control technology sources must use to meet a numeric emission limit. The costs are based on assumptions of air pollution control device retrofits, new equipment, or

A. Five-Year Review and Response to the Voluntary MACT Floor Remand for the Large MWC Source Category

1. What did we propose based on the five-year review and voluntary MACT floor remand for the large MWC source category?

a. Emission Limits

In developing the proposed standards, the EPA considered four scenarios for setting new EG and NSPS emission limits and conducted the five-year review under CAA section 129(a)(5). In the first scenario, we considered the MACT floor limits established by the best performing units for each covered pollutant. In a second scenario, we considered the appropriateness of additional beyond-the-floor controls for each covered pollutant. In a third scenario, we evaluated a combination of MACT floor emission limits for some covered pollutants and limits based on technology innovations identified in the five-year review for others. In the fourth scenario, we evaluated a combination of beyond-the-floor emission limits for some covered pollutants and limits based on technology innovations identified in the five-year review for others. As part of the EPA's reevaluation of the MACT floors established in 1995, we first considered the best performing units to establish MACT floor limits and then further considered whether beyond-the-floor controls are appropriate, including by evaluating improvements in pollution controls and associated costs and other drawbacks. Following its reevaluation, the EPA proposed standards resulting from the third scenario, which includes the MACT floor limits (as assessed and described in section IV.A.1.b of this preamble) for all covered pollutants except for NO_x, for which the EPA proposed to implement more stringent emission standards as a result of the five-year review. Tables 2 and 3 of the preamble to the proposed rule present the proposed emission limits.⁷³

b. MACT Floor Assessment

As discussed in sections II.B and III.A.2 of this preamble, the EPA sought and received a voluntary remand of the 2006 revisions to the large MWC regulations to reevaluate the 1995 MACT floors. In this rulemaking, the EPA proposed to recalculate the large MWC MACT floors from its initial analysis in 1995.⁷⁴

While reviewing the data and information originally used to calculate the 1995 MACT floors, the EPA

determined that it did not have sufficient data from that time period to characterize the performance of all units necessary to re-evaluate MACT floors. Accordingly, the EPA proposed to base the calculation of the MACT floors on additional emissions data from sources in the large MWC source category. The EPA also proposed to reevaluate the MACT floors based on the state of the industry at the time the EPA first calculated limits for large MWCs in 1995. The EPA proposed using 1990–1995 performance levels to reestablish MACT floor requirements to acknowledge the steps that large MWC facilities took to reduce emissions following the promulgated 1995 standards and to meet the EPA's obligation to correctly set MACT floor standards for each source category regulated under CAA section 129.

In other words, the EPA accounted for the fact that the 1995 regulations resulted in changes to the operation and APCDs of many large MWCs in a manner that altered the characteristics of the “best” performing units. As explained in the proposed rule, the composition of the industry remained relatively stable between the promulgation of the 1995 MACT floors and the time of our reevaluation. The EPA thus proposed to recalculate the MACT floors for large MWCs based on the population of units operating at the time of the original EG development (*i.e.*, approximately 1990), taking into account the installation of APCDs and other improvements sources made to meet the 1995 standards as based on compliance data reported for the same units from 2000 through 2009. Specifically, the EPA adjusted the initial MACT floors by assigning default control efficiencies to each APCD configuration for each covered pollutant, back-calculated an “uncontrolled” emissions value from the post-retrofit data, and then applied the control efficiencies corresponding to pre-retrofit configurations to estimate emissions that would more accurately represent the performance level of units operating in 1990. The EPA subsequently ranked the best performing units within the source category for each covered pollutant based on the adjusted emissions; analyzed the data to determine the average performance of those units, with appropriate accounting for emissions variability; and proposed MACT floor emission limits.⁷⁵

⁷⁵ In calculating MACT floors, for existing sources, CAA section 129(a)(2) requires that MACT reflect the average emissions limitation achieved by the best performing twelve percent of units in the

The EPA proposed separate methodologies for pollutants having stack test data (Cd, Pb, Hg, PM, HCl, and PCDD/PCDF) and pollutants having CEMS data (CO, NO_x, and SO₂) due to inherent differences in the data (*i.e.*, test run data vs. hourly averages). For each stack test pollutant, we performed a statistical analysis on annual averages of screened run data from the 2000 to 2009 dataset to determine UPL, based on the EPA's most recent UPL template (January 2022). For EG limits, we used average annual test data corresponding to the top 12 percent of units, and for NSPS limits, we used average annual run data for the single best performer in the UPL calculations.⁷⁶ The EPA used the most recent UPL template to conduct the analysis and then rounded up UPL results to two significant figures.

For CEMS pollutants (CO, NO_x, and SO₂), the EPA proposed that the reported CEMS data already accounted for emissions variability because the available data consisted of the reported annual peak 24-hour or four-hour average selected from the year's CEMS data and represents only the highest end of readings for the year. We therefore reevaluated limits for CEMS pollutants by averaging annual peak CEMS data corresponding to the top performers for each pollutant and applicable subcategory. For NO_x and CO, we calculated separate NSPS limits for only two subcategories, MB/WW and RDF. For NSPS purposes, the EPA assumed that the overarching MB or RDF subcategories will represent performance of any units built in the future. We rounded up the resulting averages for CEMS pollutants to two significant figures. In cases where results were greater (less stringent) than the current large MWC EG limit, we proposed to retain the current limit as the MACT floor limit.

The proposed EG and NSPS MACT floor limits for stack test pollutants and CEMS pollutants and additional information regarding the EPA's MACT floor assessment are available in section III.A.2 of the preamble to the proposed rule.⁷⁷

source category; for new sources, MACT limits must be no less stringent than the emissions control achieved by the best performing similar unit.

⁷⁶ For PCDD/PCDF, the top performing unit only had enough reported data to derive two annual averages. In this case, because the UPL template can only accommodate data sets of $n \geq 3$, the EPA used unit run data instead of the test average in the UPL calculation.

⁷⁷ *Id.*

⁷³ 89 FR 4251 (Jan. 23, 2024).

⁷⁴ *Id.*

c. Beyond-the-Floor and Five-Year-Review Results

For assessing beyond-the-floor options in the reevaluation of the 1995 standards, in conjunction with addressing the remand of the original rule's MACT floors, the EPA proposed to represent the beyond-the-floor emission limits for existing sources numerically by assuming that the beyond-the-floor option for existing sources is the new source MACT floor (emissions control achieved in practice by the best controlled similar unit, as required by CAA section 129(a)(2)) which is more stringent than the existing source MACT floor (an average of a broader range of best performing units, also as required by CAA section 129(a)(2)).

As part of the five-year review pursuant to CAA section 129(a)(5), to assess additional control options, the EPA evaluated the performance of, and variability associated with control measures affecting emissions performance at large MWC sources (including the installed emissions control equipment) and recent developments in practices, processes, and control technologies along with associated costs and other drawbacks. As part of this review, the EPA considered at proposal developments from the Good Neighbor Plan rulemaking, which found cost-effective advances in NO_x control technologies that are available for the large MWC sector.⁷⁸ The EPA proposed NO_x standards, consistent with those finalized in the Good Neighbor Plan as the CAA section 129(a)(5) five-year review options for consideration combined with either the MACT floor or beyond-the-floor controls for the other covered pollutants. Specifically, the EPA's third scenario consisted of evaluating MACT floor emission limits for all covered pollutants except NO_x, which the EPA proposed as a five-year review emission limit. The EPA's fourth scenario consisted of evaluating beyond-the-floor emission limits for all pollutants except NO_x, which the EPA proposed as a five-year review emission limit. Based on the EPA's analyses and the findings of the Good Neighbor Plan, the EPA selected at proposal the MACT floor plus five-year review approach (scenario three) as the most cost-effective means to maximize emissions reductions.

In the proposed rule, the EPA found that the 14,200 tpy emissions reductions achieved by the third scenario (the combination of MACT floors for all

covered pollutants except for NO_x, which the EPA proposed updating per the five-year review) are significantly greater than the reductions achieved by the first scenario (updates to the MACT floors alone), by approximately 5,020 tpy. The 16,800 tpy emissions reductions achieved by the fourth scenario (the combination of beyond-the-floor limits with the updated NO_x standard under the five-year review) equal 2,600 tpy in incremental emissions reduction above those achieved by scenario three. In reviewing the cost effectiveness of the third and fourth scenarios, the EPA found that the third scenario included a cost effectiveness of approximately \$7,000 per ton emissions reduction of regulated pollutants, while the fourth scenario resulted in a cost effectiveness of approximately \$35,000 per ton emissions reduction of regulated pollutants. As such, the EPA proposed that the third scenario—reevaluated MACT floor limits coupled with the five-year review for NO_x standards—provided the most cost-effective means to maximize emissions reductions and was therefore the most appropriate set of emission standards.

In the proposal, through selection of the third scenario, the combination of MACT floor emission limits for all covered pollutants except for NO_x with the five-year review emission limit, the EPA recognized that owners or operators have retrofitted most sources with APCDs that were state of the art for MWCs in the 1990s (*i.e.*, spray dryers, fabric filters, and activated carbon injection) for covered pollutants other than NO_x. The EPA also believed that the NO_x control retrofits that are currently available—but were not in the 1990s—for most existing large MWCs appear to be cost-effective (approximately \$5,000 to \$6,000 per ton) and technically feasible for several existing large MWC units currently operating in the U.S. More details on the cost effectiveness of the options considered are in the memorandum entitled *Compliance Cost Analyses for Large MWC Final Rule Amendments* in the docket for this rulemaking.

The EPA proposed the 110 ppmvd (24-hour) NO_x limit consistent with the NO_x limit finalized under the Good Neighbor Plan based on the application of ASNCR or Covanta LNTM NO_x technology, finding that this limit was cost effective for existing units outside of the Ozone Transport Region that the Good Neighbor Plan did not cover; separately, in the Good Neighbor Plan, the EPA found that the limit was cost-effective for units inside of the Ozone

Transport Region.⁷⁹ Unlike the Good Neighbor Plan, the EPA did not propose a mechanism for existing large MWCs to request a case-by-case emission limit based on a demonstration that application of ASNCR and Covanta's LNTM Technology or any other NO_x emission reduction technologies or measures is not technically feasible.

For all new units, the EPA proposed a NSPS NO_x limit of 50 ppmvd (measured in 24-hour period). The EPA based this limit on the permitted NO_x limit for the only facility currently using SCR technology with an air-to-air heat exchanger providing flue gas reheat prior to entering the SCR reactor to represent the five-year review standard for new sources. The EPA determined that owners or operators only reasonably can apply this design during construction of the unit, so retrofitting SCRs to other existing units would be technically infeasible and/or very costly if provision of reheat requires use of a supplemental burner.

Although the EPA considered other potential improvements that could be technically feasible for large MWCs as part of the five-year review, including circulating fluidized bed scrubbers (CFBS) for acid gas control and oxidation catalysts for CO control, we did not propose standards based on the performance improvements these technologies might yield. The EPA determined that retrofitting existing large MWC units with CO oxidation catalysts would be prohibitively costly, as accommodating an entirely new piece of equipment in the APCD system would require new facility footprint space and flue gas routing. For CFBS, the EPA acknowledged that although theoretically owners or operators could replace existing acid gas control devices with a CFBS to achieve slightly better acid gas control, the EPA lacked data demonstrating technical feasibility for new or existing MWC units.

2. How did the proposed emission limits and MACT floor assessment change for the large MWC source category?

As introduced in section III.A of this preamble, the EPA has revised its MACT floor assessment for the EG and NSPS in response to new data and associated comments since the proposal. The EPA is finalizing the same fundamental analytical approach as proposed, specifically using separate methodologies for pollutants with stack test data (Cd, Pb, Hg, PM, HCl, and PCDD/PCDF) and pollutants with CEMS data (CO, NO_x, and SO₂). For each stack

⁷⁸ 88 FR 36654 (June 5, 2023).

⁷⁹ *Id.*

test pollutant, the EPA performed a statistical analysis on annual averages of screened run data to determine a UPL. For CEMS pollutants, we averaged peak annual values, maintaining its stance that the data in this form already account for emissions variability. For EG limits, we used data corresponding to the top 12 percent of units, and for NSPS limits, we used data for the single top performer, consistent with CAA section 129(a)(2).

The emissions test data that the EPA used for the UPL analyses for stack test pollutants includes the 2000 through 2009 compliance data and newly received data from 1990 through 1995. The EPA made minor revisions to the 2000 through 2009 data set based on comments received. The 1990s data came from test reports and related documents submitted via email to the EPA in 2024 and 2025 by the WTEA or from attachments to comments submitted to the docket. The EPA assessed the performance of large MWCs operating in 1990 primarily based on the 1990s data. However, these data accounted for 75% of units operating in 1990, so we filled data gaps, where possible, based on adjusted emissions data from the 2000s dataset. Similar to the approach used at proposal, we accounted for performance improvement over time by adjusting the 2000 through 2009 emissions data to reflect 1990s performance. In the revised analysis, the EPA used paired 1990s and 2000s data to inform its adjustment factor development based on combustor/APCD combinations rather than relying on default APCD efficiencies alone, as the EPA did at proposal.

For the NSPS analysis for stack test pollutants, the EPA revised the UPL approach to address variability concerns raised by commenters regarding the limited number of data points available for the top performers. For every stack test pollutant, only one test was available for the top performer. To account both for more recent operational practices and waste characteristics that a single test from the 1990s may not sufficiently characterize and for the fact that we could not obtain additional years of data from the early 1990s, we assessed the distribution and variance of 2000s test averages (*i.e.*, data from several years) for the same performer. In all cases, the 2000s data distribution matched the 1990s distribution, and the EPA combined variance of the 2000s data with the variance of the 1990s data in the UPL calculation.

For CEMS pollutants, the EPA made no changes to the MACT floor

calculation methodology; however, revisions to the dataset as described in this section yielded a new EG limit for SO₂ and a new NSPS limit for CO for mass burn waterwall units. Further details regarding the revised MACT floor assessment are provided in the LMWC MACT Floor memorandum for the final rule.⁸⁰

For the five-year review and beyond-the-MACT floor approaches, the EPA is not finalizing our determinations as proposed for existing units, meaning that the EPA is not basing the NO_x standard on the findings of our five-year review. Tables 2 and 3 of this preamble present the resulting final emission limits.

3. What key comments did we receive on the emissions limits, MACT floor assessment, beyond-the-floor, and five-year review, and what are our responses?

Comment: The EPA received numerous comments on the proposed control factor adjustment approach to emulate data from large MWCs that were operating in 1990 for reevaluating the original MACT floor. Commenters suggested that the EPA's proposed approach did not adequately characterize operational and waste composition differences from the 2000–2009 timeframe to the early 1990s and urged the EPA to use actual data from the 1990s to better inform any adjustments or calculations. Several commenters provided emission tests, spreadsheets, or test report summaries with emissions test information for a portion of the large MWC units in operation in 1990, as well as for some units that came into operation after that time but had performance data from the early 1990s. These industry commenters also provided some emissions test summary data from units within the 2000–2009 timeframe, consisting mainly of test averages for years and units for which we did not already have data in the 2000–2009 database. Other commenters argued that the EPA should not adjust the emissions data to reflect less protective performance and should not limit the reevaluation of the MACT floor to units operating in 1990, stating that this approach ignores better equipment and performance exhibited by newer large MWCs and that the five-year review requires use of newer units' data.

Response: The EPA agrees with commenters' arguments that adjusting

post-compliance data based purely on expected APCD performance may not adequately reflect differences in waste composition or operational improvements from the 1990s to the 2000–2009 compliance data in the EPA's database. The EPA therefore reopened the comment period for commenters to compile and submit available data from the 1990s. The data received during the additional comment period significantly increased the amount of information available to evaluate performance in the 1990s, especially in cases where no data was available for a unit. The additional data also allowed the development of a more robust adjustment factor to apply to 2000–2009 compliance data.

The EPA assessed the performance of large MWCs operating in 1990 primarily based on the 1990s data. However, these data accounted for 75% of units operating in 1990, so the EPA filled data gaps, where possible, based on adjusted emissions data from the 2000s dataset. Similar to the approach used in the proposal, the EPA accounted for performance improvement over time by adjusting the 2000s emissions data to reflect 1990s performance. In the revised analysis, we used paired 1990s and 2000s data to inform its adjustment factor development on combustor/APCD combinations rather than relying on default APCD control efficiencies alone, as we did at proposal.

For the NSPS analysis for stack test pollutants, the EPA revised the UPL approach to address variability concerns that commenters raised regarding the limited number of data points available for the top performers. For every stack test pollutant, only one test was available for the top performer. To account both for more recent operational practices and waste characteristics that a single test from the 1990s may not sufficiently characterize and for the fact that we could not obtain additional years of data from the early 1990s, we assessed the distribution and variance of 2000s test averages (*i.e.*, data from several years) for the same performer. In all cases, the 2000s data distribution matched the 1990s distribution, and we combined the variance of the 2000s data with the variance of the 1990s data in the UPL calculation.

For CEMS pollutants, the EPA made no changes to the MACT floor calculation methodology; however, revisions to the dataset yielded a new EG limit for SO₂ and a new NSPS limit for CO for mass burn waterwall units.

The EPA disagrees with some commenters' argument that using data from more recently constructed units to

⁸⁰ See memorandum entitled *MACT Floor Calculations for Large Municipal Combustor Units—Final Rule*, available at Docket ID No. EPA–HQ–OAR–2017–0183.

establish the MACT floor is appropriate here, as that suggested approach would characterize best performers that were already in compliance with the existing MACT standards. The goal of the remand is not to calculate MACT on top of the existing MACT but to reevaluate the original standards to ensure they appropriately reflect MACT when initially promulgated.⁸¹ Thus, the analysis continues to reflect only units that were operating in 1990 because the EPA is reevaluating this original MACT floor as part of this rulemaking. Further, we have not changed our approach to using the UPL for calculating stack test pollutant emission limits and the average of the highest annual values for the best performers for the CEMS pollutants (CO, NO_x, SO₂), although we have reevaluated the data for the units identified in the proposal as best performers.⁸² Additional specific comments on various aspects of the emission limit calculation approach, such as use of the UPL, subcategorization and other approaches to addressing variability are in section 4.0 of the Comment Response Document in the docket for this rulemaking.

Comment: Commenters argued that the proposed new source limits do not consider the variability of waste streams from different communities as well as seasonal variation within a community. One commenter proposed that the EPA base the variance on the top 12% of units identified for development of the MACT floors for existing units to provide a more representative estimate

of variability, given the lack of actual data. Other commenters stated that the EPA's UPL approach for stack test pollutants limits the data set to only a handful of tests and leads to an extremely high calculation of variability under the extreme (99th percentile) UPL employed. These commenters asserted that in the past, the EPA has instead set "beyond-the-floor" limits for units where the 99th percentile UPL for the single "best" unit was less stringent than the UPL for the average of the top 12 percent.

Response: The EPA recognizes that there is some merit to the argument that a single emissions test taken more than 30 years ago may not accurately characterize waste and operational variability that a large MWC unit may see on a day-to-day basis. Further, we acknowledge that, after extensive industry efforts to collect legacy emissions data from the 1990s, the best performing units each only have a single emissions test reflecting performance at that time, and there are not additional tests from that timeframe available that we could use to gauge waste variability impacts in the 1990s. To address these commenters' concerns, we have reviewed the available 2000–2009 data for the best performing units, for which several years of data are available. The EPA compared the variance observed for the best performing units' 1990s data and 2000s data and found them to be the same distribution type and so we replaced the variance from the single 1990s emissions test with the variance observed from the multiple year 2000s data set available for the best performer in the UPL calculation. The resulting limits therefore incorporate variance observed over multiple years, which presumably would incorporate waste variance, and apply this variance to the UPL calculation using 1990s emissions data. The resulting limits are more stringent than the reevaluated EG MACT

floors, so beyond-the-floor emission limits suggested by commenters are not necessary for the stack test pollutant limits calculated using UPL methodology.⁸³

Comment: Commenters questioned the data that the EPA used to calculate the NSPS CO emission limit for MB/WW units and questioned the validity of the low CO emissions reported for the Wheelabrator Bridgeport large MWC. Commenters added that the proposed 16 ppmvd emission limit is unachievable.

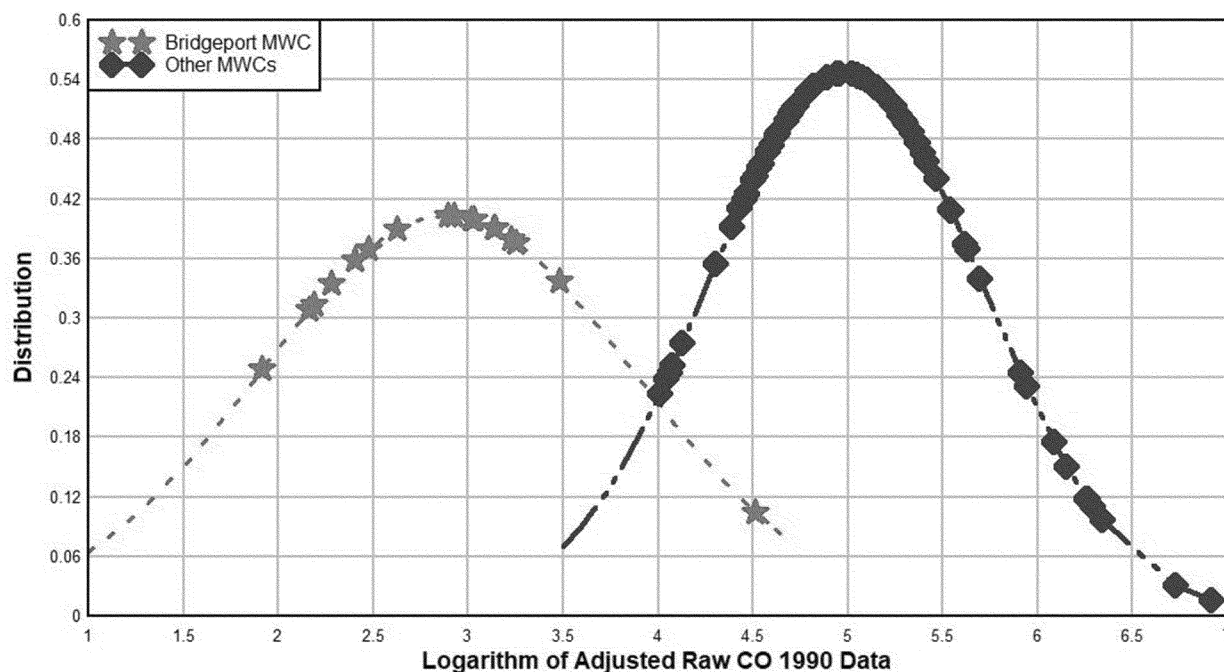
Response: Acknowledging differences in the reporting method for the Wheelabrator Bridgeport data from the data submitted for other sources, the EPA assessed whether it was appropriate to consider the Wheelabrator Bridgeport data as part of the larger dataset that included other submissions. The EPA performed a paired t-test analysis, using ProUCL software, of the three Wheelabrator Bridgeport units against the rest of the best performers in order to determine whether these units are in fact representative of the best performers or whether they are a statistically distinct dataset. The paired t-test indicates that, at the 99.9 percent confidence coefficient, there are two distinct populations of data—those from Wheelabrator and those for the other units. Figure 1 depicts the two distinct data sets.

Figure 1. Probability Distribution Function of Adjusted Raw CO 1990 Data

⁸³ To represent beyond-the-floor emission limits numerically, we assumed the new source MACT floor (*i.e.*, emissions control achieved in practice by the best controlled similar unit) as the emission limit applied to existing sources. From a cost-effectiveness viewpoint, the beyond-the-floor/5-year review scenario was five times more costly with less incremental emissions reductions of regulated pollutants. For further discussion of the rationale, see section III.A.3 of the preamble to the proposed rule.

⁸¹ See *U.S. Sugar Corp.*, 113 F.4th 984 (upholding the EPA's decision to rely on original dataset to correct prior MACT standards errors and recalculate MACT floor during remand); *cf. Med. Waste Inst. Energy Recovery Council v. EPA*, 645 F.3d 420 (D.C. Cir. 2011) (holding that the EPA was reasonable in its decision to use post-compliance data to reset MACT floor during remand after concluding that the prior dataset was flawed).

⁸² See comment and response below on NSPS CO emission limit for further discussion.



There are no known operational differences that would cause the Wheelabrator Bridgeport units to be distinct from the rest of the best performers. Wheelabrator Bridgeport did not report emissions that occurred during SSM, which is inconsistent with the new standard (which includes periods of SSM), while other units included SSM data. While emissions of covered pollutants are typically low during periods of startup and shutdown because no waste has been added to the large MWC, this is not always true of CO because low emissions of CO in a combustor is an indicator of good combustion efficiency. The goal of warmup and startup in a combustor is to establish steady-state, maintainable good combustor efficiency to begin normal operations; before the combustor reaches steady-state, the CO emissions can vary widely with the changes in the combustion environment characteristic of warmup, startup, and shutdown. For large MWCs, annual maximum average CO emission concentrations frequently occur during periods of SSM.⁸⁴ The EPA finds it most likely that the low reported concentrations in data from the Wheelabrator Bridgeport units exclude emissions during periods of SSM, which other facilities include in their reported data. We attribute this likely exclusion to the reporting requirements of the applicable rule. Specifically, although

the NSPS and EG, subparts Eb and Cb only require regulated facilities to report the maximum average during the year, some State and local agencies require the reporting of all periods of operation, and others require reporting only during normal operations. Because the EPA therefore determined that the Wheelabrator Bridgeport data from the CEMS dataset are nonrepresentative and not appropriately comparable to data from units whose reported emissions data included SSM periods, we removed the Wheelabrator Bridgeport data from the dataset and redetermined the best performers and the associated MACT floor. This approach resulted in a NSPS CO emission limit of 76 ppmvd and an EG SO₂ emission limit of 22 ppmvd, because the EPA had identified the Wheelabrator Bridgeport units as the best performer for CO and within the top 12 percent of best performers for SO₂ at proposal and these data were excluded from the dataset in this final rule.

Comment: Commenters both supported and criticized the five-year review finding that there are cost-effective methods such as ASNCr technology and Covanta's LNTM Technology, available for existing units to meet a 110 ppmvd emission limit for NO_x. Some commenters suggested a more stringent NO_x limit based on the application of hybrid selective noncatalytic reduction (SNCR) and SCR.

Response: The EPA is not finalizing the proposed NO_x emission limit of 110 ppmvd for existing large MWCs due primarily to the large capital expense

(more than \$412 million) that the EPA reasonably anticipates for the existing large MWC source category as a whole. As noted previously, the stay of the Good Neighbor Plan means costs to comply with this standard would be higher than previously estimated and the emissions reductions estimates are more uncertain than previously believed. At proposal, the EPA excluded units that we expected the Good Neighbor Plan to cover from the capital cost estimate, which was \$257 million for the remaining units. The inclusion of those previously excluded units increases the total estimated capital cost to \$412 million. The EPA recognizes that this industry provides public services, and these large capital expenditures on the industry could be challenging, especially for municipalities that own large MWCs or parent companies that operate multiple large MWC facilities.

In addition, the EPA recognizes significant uncertainty in the emission reductions and cost effectiveness estimates from proposal, based on a likely overestimation when using the average of peak 24-hour CEMS data to calculate baseline NO_x emissions. We are, however, maintaining the proposed 50 ppmvd NO_x limit for new sources within the NSPS based on the availability and continued operation of a large MWC unit equipped with SCR controls.⁸⁵ Regarding SNCR-SCR hybrid

⁸⁴ This is why we are finalizing that CEMS data collected during warmup, startup, or shutdown periods will be averaged at stack oxygen content and not corrected to seven percent oxygen, as are data during normal operations.

⁸⁵ See memorandum entitled *Clean Air Act Section 129(a)(5) 5-Year Review for the Large Municipal Waste Combustor Source Category*.

technologies, limited information is available about application of these technologies, and no information is available about long-term performance of these controls applied to municipal waste combustors. However, the final standards do not specify the controls that owners and operators must use to meet the emission limits for NO_x, and owners or operators may investigate whether an SNCR–SCR hybrid system is a viable option for their emission control needs.

4. What is the rationale for our final approach?

The underlying approach to and premise for our reevaluation of the 1995 MACT floors as described in the proposed rule remains the same. As discussed in sections II.B and III.A of this preamble and in the proposed rule, the EPA has recalculated the large MWC MACT floors using actual 1990–1995 test data in order to correct the EPA’s 1995 analysis of MACT floors to account for case law questioning standards based on State-issued permit levels without evidence that the permit levels reflect the performance of the best performing sources. In recalculating the 1995 MACT floors to correct errors in our initial analysis, the EPA is assessing the state of the industry at the time that we first calculated limits for large MWCs. Given the history of limited data availability of this source category, the EPA views this approach as appropriate to establish MACT floors that reflect the emission levels actually achieved by the best performing sources using the MACT before sources in the category first complied with the 1995 standards. The EPA determined that utilizing 1990s performance levels to reestablish MACT floor requirements appropriately balances competing interest in this rulemaking, by recognizing on one hand that large MWC facilities have taken steps to reduce emissions since the EPA first promulgated 1995 standards, and on the other hand the EPA’s obligation to correctly set MACT floor standards for each source category regulated under CAA section 129. At proposal, the EPA determined that it did not have sufficient data from the 1990s to

characterize the performance of all units during that time period and that it was necessary to utilize a different dataset to recalculate new MACT floors from the one used to set the initial MACT floors in 1995. Emissions data received during the public comment periods allowed the EPA to develop a 1990–1995 data set, which the EPA used in conjunction with the 2000–2009 compliance data to better reflect 1990s performance when reevaluating the MACT floors for the final rule.⁸⁶

In the related context of hospital, medical, and infectious waste incinerators (HMIWI) also regulated under CAA section 129, the EPA issued a rule on remand from the D.C. Circuit to further explain our reasoning in determining MACT floors for new and existing HMIWI.⁸⁷ In that situation, after the original MACT floors went into effect for HMIWI, approximately 94 percent of HMIWI units shut down, and an additional three percent of units obtained exemptions from the regulations.⁸⁸ Because of these significant changes in the regulated industry, we were not confident in using much of the same data used to set the original MACT floors, in part because data were unavailable from the many units that shut down following promulgation of the original standards. The EPA instead found “the best course of action [was] to re-propose a response to the remand based on data from the 57 currently operating HMIWI.”⁸⁹ Subsequently, in reviewing the EPA’s recalculated MACT floors for HMIWI, the D.C. Circuit found that “[w]hen the EPA determined that its regulation rested on unreliable data and that it had to reset the floors, the Agency was functionally regulating on a blank slate even though the regulation continued to remain on the books.”⁹⁰

The EPA is also functionally establishing new MACT floors for large MWCs on a blank slate because the 1995 MACT floors were originally calculated using a data set—state air permitting levels—that was not appropriate absent evidence of actual emissions. Unlike in the HMIWI rulemaking, however, there have not been significant retirements in the large MWC industry since we first introduced standards in 1995, and the

industry today consists largely of the same units that were operating before the original MACT floors went into effect. Instead of retirements, the majority of the industry installed APCD and made other improvements to meet the 1995 standards. Because the industry today consists of largely the same units that were operating in 1995, we are able, as proposed, to calculate revised MACT floors for large MWCs that are appropriate for the current fleet, based on the industry’s 1995 performance level.

Sections III.A.2 and IV.A.2 of this preamble explain the data and methodology the EPA used to reevaluate the MACT floors for large MWCs. In general, the EPA has used the 1990s emissions data to the fullest extent possible considering the documentation available for the data. For example, the EPA used emissions concentration data extracted from emission test reports, test report executive summaries, and State-provided compliance data that contained sufficient information to convert the data into useable and consistent units of measure (*i.e.*, mg/dscm at seven percent O₂) for use in the UPL calculations in lieu of adjusting 2000–2009 data, as done at proposal. In calculating the MACT floors, we did not use data that was provided in the form of emission factors (*e.g.*, lb/ton MSW) or emission rates (*e.g.*, lb/hr) and that lacked sufficient supporting test data to convert to consistent units of measure without use of default F-factors or heat input rates. Recognizing that 1990s data were unavailable for some of the units in operation in 1990, the EPA filled data gaps by adjusting the 2000–2009 data for each of the units as necessary using data adjustment factors. Unlike at proposal, the EPA used paired 1990s–2000s data for similar combustor types and APCD configurations to develop the data adjustment factors. These factors thus reflect all differences in waste and operational methods from the 1990s and 2000s, and the EPA was able to better adjust the 2000s data accordingly to approximate performance in the 1990s when earlier data are unavailable for specific units.

The EPA did not change the UPL calculation methodology for the EG MACT floor standards from proposal, but recognized that the best performers used for calculating the NSPS standards for stack test pollutants only had one test available from the 1990s. The EPA acknowledged that municipal waste streams are a uniquely variable fuel source with numerous factors that can directly impact emissions (such as seasonal changes in waste composition or consumer habits), and one stack test

available in docket EPA–HQ–OAR–2017–0183. Also note that the Good Neighbor Plan supporting documentation came to similar conclusion: “[T]he study concluded that there are significant space considerations with SCR system installation which can be managed in a cost effective way in a new development, but which make retrofit installation very costly and complex.” *Municipal Waste Combustor Workgroup Report* (Revised May 2023), Ozone Transport Commission Stationary and Area Sources Committee: https://otcair.org/upload/Documents/Reports/OTC%20MWC%20report%20revised%205_2023.pdf.

⁸⁶ The EPA further notes that this approach is consistent with the congressional design of CAA section 129, which envisioned the calculation and implementation of MACT floors for this source category through rulemaking by 1990. *See* 42 U.S.C. 7429(a)(1)(B).

⁸⁷ 74 FR 51368 (Oct. 6, 2009).

⁸⁸ 72 FR 5510, 5518 (Feb. 6, 2007).

⁸⁹ 73 FR 72962, 72970 (Dec. 1, 2008).

⁹⁰ *Med. Waste Inst. & Energy Recovery Council*, 645 F.3d 420.

may not sufficiently reflect this inherent waste variability. Considering that sources collected these data three decades ago and that obtaining additional data from the 1990s to evaluate variability at the unit over that time period was not possible, we reviewed the 2000–2009 data available for the best performers. The EPA compared the variance and population distribution of the sole 1990s test data to the multiple years of data available from the 2000s for the best performers and found them to be of the same distribution type. Therefore, to ensure that longer-term waste variability is adequately addressed in this unique situation, we incorporated the variance data from the 2000s data for the best performers into the UPL equations, using the 1990s emissions data to develop the NSPS MACT floor emission limits.

Likewise, the EPA analyzed the data from the CO best performer at proposal (CEMS data from Wheelabrator Bridgeport units) and, as described in section III.A.2 of this preamble, determined that these data are statistically unique from the remainder of the large MWC fleet's data due to the probable non-reporting of data during SSM. Therefore, the EPA has excluded the Wheelabrator Bridgeport CEMS data from the CEMS pollutant MACT calculations.

Finally, after review of comments and considering the stay of the Good Neighbor Plan, the EPA is not finalizing the results of our five-year review as proposed. Mainly, the EPA is setting the emission standards for NO_x at the reevaluated MACT floor level instead of the 110 ppmvd limit based on the five-year review proposed for large MWCs in light of the then-effective Good Neighbor Plan and the performance observed by some existing large MWC units operating in the U.S. currently. While the standards do not prescribe a particular control technology, as we discuss in the preamble to the proposed rule, existing sources have used ASNCR and Covanta's LNTM technologies to achieve the 110 ppmvd performance. We evaluated the costs associated with this performance level,⁹¹ and we have the following concern: application of these controls to the remaining population of existing large MWCs would result in an expected \$411.6 million capital expenditure by the large MWC sector, which in turn owners or operators potentially would pass forward, resulting in tipping fee

increases or potential unit closures for municipalities that utilize large MWCs for the MSW disposal needs.⁹²

The EPA does not see this situation for large MWC sources that have yet to commence construction. As noted at proposal, a facility designed with SCR NO_x controls has been operating successfully for several years. Nothing in the comments suggests that future large MWC unit construction could not do the same. Therefore, we are maintaining the proposed 50 ppmvd NO_x limit for NSPS units. Specific comments on and associated responses to comments on the emission limit calculation and 5-year review methodology and results are provided in the Comment Response Document in the docket for this rulemaking.

B. Startup, Shutdown, and Malfunction

1. What did we propose pursuant to SSM provisions for the large MWC source category?

The EPA proposed revisions to the SSM provisions of the large MWC NSPS and EG to ensure that these provisions are consistent with the D.C. Circuit's decision in *Sierra Club*. In that decision, the court vacated an SSM exemption in a CAA section 112 regulation after concluding that, pursuant to the definition of "emission standard" and "emission limitation" in CAA section 302(k), emissions standards or limitations under CAA section 112 must apply continuously and that the SSM exemption violated the CAA's requirement.⁹³ The EPA proposed that the reasoning in *Sierra Club* applies equally to CAA section 129 because the definition of "emission standard" in CAA section 302(k) also applies to emission standards and limitations established pursuant to CAA section 129.

The EPA did not propose a separate emission standard for large MWC units during periods of startup and shutdown. We determined that large MWC units would be able to meet the emission limits during periods of warmup and startup because most units use natural gas or clean distillate oil to warm up the unit and do not add waste until the unit has reached combustion temperatures during a brief startup period. Emissions from burning natural gas or distillate fuel oil would generally be significantly lower than from burning solid wastes, for most pollutants, specifically those where owners or operators measure compliance by using stack tests (e.g.,

Cd, Pb, Hg, PM, PCDD/PCDF, and HCl). Further, because we accounted for emissions variability and proposed appropriate averaging times to determine compliance with the revised MACT standards, we believed we adequately addressed any minor variability that may occur during startup or shutdown.

The EPA also proposed to eliminate the exclusions of periods of warmup, startup, and shutdown from CEMS data averaging calculations present in the 1995 large MWC rules for NO_x, SO₂, and CO and replace them with a monitoring and compliance demonstration approach used in the more recent CAA section 129 rulemaking for CISWI NSPS and EG.⁹⁴ We proposed that owners or operators must collect and report CEMS data whenever the large MWC unit is operating. Periods when the combustor is operating but owners or operators are not recording monitoring data due to monitor malfunctions may be considered deviations.⁹⁵ We proposed that owners or operators flag CEMS data collected while the large MWC unit is warming up, starting up, and shutting down as warmup, startup, or shutdown period data. We proposed that owners or operators must use the CEMS data for the warmup period and up to three hours of allowable startup or shutdown time per occurrence to calculate rolling or block average values but average these at stack oxygen content instead of at a seven percent O₂ diluent cap. We requested comment on whether we should adopt a 30-day hourly rolling average for demonstrating compliance for pollutants measured using continuous monitoring, similar to provisions that the EPA has promulgated in many recent combustion standards, such as in CISWI, the Mercury Air Toxics Standards, and the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.⁹⁶

Periods of startup, normal operations, and shutdown are predictable and routine aspects of a source's operations. Malfunctions, in contrast, are neither predictable nor routine. Instead they are, by definition, sudden, infrequent, and not reasonably preventable failures

⁹⁴ 84 FR 15846 (Apr. 16, 2019).

⁹⁵ This excludes periods of system breakdowns, repairs, and required routine monitor calibrations or quality assurance/quality control periods, according to 40 CFR 60.13(e).

⁹⁶ Mercury Air Toxics Standards (40 CFR part 63, subpart UUUU); Commercial and Institutional Boilers and Process Heaters (40 CFR part 63, subpart DDDDD).

⁹¹ See memorandum entitled *Compliance Cost Analyses for Large MWC Final Rule Amendments*, Docket ID No. EPA-HQ-OAR-2017-0183.

⁹² See *id.*

⁹³ 551 F.3d 1028 (vacated the SSM exemptions that were codified at 40 CFR 63.6(e)(1), (f)(1) and (h)(1)).

of emissions control, process, or monitoring equipment.⁹⁷ The D.C. Circuit in *U.S. Sugar Corp.* upheld the EPA's position that CAA section 112 does not require the Agency to include emissions that occur during periods of malfunction when developing CAA section 112 MACT standards.⁹⁸ We proposed that the reasoning in *U.S. Sugar Corp.* applies equally to section CAA 129 standards given the similarities between the section 112 and 129 standard setting criteria.

2. How did the proposed startup, shutdown, and malfunction provisions change for the large MWC source category?

The EPA is finalizing the proposed revisions to the SSM provisions of the NSPS and EG. We received comments both supporting and opposed to the proposed approach, but none presented sufficient information to cause us to determine that the approach proposed would be unachievable for large MWC units or otherwise as inappropriate. Moreover, in *Environmental Committee of the Florida Electric Power Coordinating Group, Inc. v. EPA*, the D.C. Circuit recognized that similar to CAA section 112, CAA section 129(a)(1)(A) requires the use of "emission limitations" consistent with the CAA section 302(k) definition.⁹⁹ This further supports finalizing the proposed revisions to the SSM provisions consistent with the D.C. Circuit's decision in *Sierra Club*.

We note that large MWC units operating in Florida have operating permits with practically the same requirements for startup and shutdown events as those the EPA proposed. For example, the Covanta Lake II, Inc. facility has limits that apply during startup and shutdown but "[t]hese limits do not utilize any diluent correction."¹⁰⁰ Specific comments and associated responses to the SSM provision revisions are in the Comment Response Document in the docket for this rulemaking.

C. Other Changes to the Large MWC EG and NSPS

1. Changes to the Applicability Date of the 1995 Large MWC EG and NSPS

a. What did we propose regarding applicability dates for the large MWC source category?

The EPA proposed new applicability dates for determining whether units are "existing" or "new" sources. Specifically, we proposed that large MWC units that are currently subject to the NSPS would become existing sources under the proposed amended standards and subject to the revised EG by the applicable compliance date for the revised guidelines. However, those units would continue to be NSPS units subject to the 1995 large MWC final rule until they become subject to the amended existing source EG. We proposed that large MWC units that commence construction after the date of the 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 the NSPS emission limits. Units for which owners or operators commence construction or modification prior to those dates would be existing units subject to the proposed EG.

As discussed in section III of this preamble, the EPA proposed to reserve 40 CFR part 60, subpart Ea standards, which apply to units for which construction commenced after December 20, 1989, and on or before September 20, 1994. The EPA proposed that any units that meet subpart Ea applicability would become existing units subject to the EG once implemented through a State or Federal plan.

b. How did the proposed revisions to the applicability dates change for the large MWC source category?

The EPA did not receive comments on the proposed resetting of the applicability dates, so we are finalizing these revisions as proposed. However, as noted earlier in the preamble, we recognize that the Agency may need subparts Cb and Eb at a future date once all large MWC units are complying with the requirements of subpart WWWW through an approved State plan or the Federal Plan. Therefore, we intend to reserve all three subparts (40 CFR part 60, subparts Cb, Ea, and Eb) in a future rulemaking once all large MWC units are in compliance with the requirements of 40 CFR part 60, subpart WWWW via either State plan or Federal plan means of implementation.

2. Changes to Alternative Percent Reduction Standards for Hg, HCl, and SO₂, and Removal of the Emissions Averaging Allowance for NO_x

a. What did we propose regarding changes to alternative percent reduction standards for the large MWC source category and emissions averaging allowances for NO_x?

The EPA proposed to remove all alternative percent reduction standards that the original 1991 final rule allowed, including the 85 percent reduction allowed for Hg (NSPS and EG), the 95 percent allowed for HCl (NSPS and EG), and the 80 percent (NSPS) and 75 percent (EG) allowed for SO₂. We proposed to remove the alternative standards based on limited data available in the large MWC emissions database to evaluate for the alternative percent reduction standards and to provide a numeric concentration limit for these pollutants, which would prevent situations where a different concentration of covered pollutants is emitted from facility to facility or unit to unit.

The EPA also proposed to remove the NO_x emissions averaging alternative provided in the EG.¹⁰¹ We determined that owners or operators rarely use this emissions averaging alternative and proposed that it is incompatible with the NO_x emissions standards established in the Good Neighbor Plan, which were considered as part of the five-year review process as discussed in sections III.A and IV.A of this preamble.

b. How did the proposed revisions to the alternative percent reduction standards change for the large MWC source category?

After considering public comments and upon further review, the EPA is not finalizing the proposed removal of the alternative percent reduction standards allowed in the existing NSPS and EG. Instead, we are finalizing recalculated alternative percent reduction standards based on additional 1990–1995 removal efficiency data for the best performing units used in the re-evaluated MACT standards for Hg, HCl and SO₂. The EPA used emission reduction data and a predictive statistical interval, the lower predictive limit (LPL), to calculate alternative standards to the concentration-based emission limits for these three pollutants.¹⁰² The EPA received comments supporting and opposing the removal of the alternative

⁹⁷ See 40 CFR 63.2 (definition of malfunction).

⁹⁸ 830 F.3d at 606–10.

⁹⁹ 94 F.4th 77, 103 (D.C. Cir. 2024).

¹⁰⁰ See the Covanta Lake II, Inc. Startup-Shutdown-Malfunction Emission Limit Project, Permit No. 0690046–017–AC, Docket ID EPA–HQ–OAR–2017–0183.

¹⁰¹ 40 CFR 60.33b(d)(1).

¹⁰² See memorandum entitled *MACT Floor Calculation for Large Municipal Waste Combustor Units—Final Rule*, available in the docket for this rulemaking.

percent reduction standards. Considering the comments, the EPA recognizes that the alternative percent reduction standards provide much-needed compliance flexibility considering the variable composition of municipal solid waste and the air pollution controls available for covered pollutants. Occasional slugs of high sulfur or chlorine-containing waste materials may cause brief spikes in acid gas content of the flue gas, to which acid gas scrubbing devices may not immediately be able to respond. Similarly, a mercury-containing item in the municipal waste stream could cause an unanticipated spike, which the activated carbon adsorbent injection system may not immediately be able to respond and which may cause noncompliance with a numeric flue gas concentration limit, although the device is still achieving a high level of Hg removal. Because large MWC owners and operators have limited control over the contents of the waste combusted in their units, this flexibility furthers the goal of leveling the playing field for large MWCs. Without the percent reduction alternative, a large MWC could have a set of air pollution controls identified as the BSER but, due to the unexpected or unusual presence of a waste with a high content of a covered pollutant or precursor to a covered pollutant, be unable to comply with the numeric flue gas concentration limit through no fault of their own. This means that even if two large MWCs have identical administrative and engineering controls, one may be able to demonstrate compliance with the standard and the other may not. That does not represent a level playing field, and only potentially subjects the compliance status of large MWCs to the whims of what the public throws in municipal waste on any given day. The percent reduction alternative standard provides for a more level playing field where two large MWCs with the same administrative and engineering controls can consistently achieve compliance regardless of the contents of the municipal waste, which they cannot completely control.

The EPA also recognizes, however, that the Agency relied heavily on engineering judgement while developing the existing alternative percent reduction standards rather than data demonstrating the performance of the best performing sources. Therefore, as discussed above, the EPA has recalculated these alternative standards based on emissions data using LPL predictive statistics. The resulting alternative percent reduction standards

are generally similar to the existing standards but now reflect a standard based on actual emissions performance data. For example, the EG Hg and SO₂ alternative percent removal standards remain unchanged. However, the EG HCl percent reduction standard rises from 95% to 96%. Similarly, for the NSPS, the Hg percent reduction standard is unchanged at 85%. However, the HCl standard rises from 95% to 98%, while the SO₂ drops by a percentage point, from 80% to 79%.

The EPA is not including the NO_x emissions averaging allowance in the final subpart WWWW EG although for different reasons than those stated at proposal. We conclude that existing sources will not need this allowance on two distinct factors. First, we are not aware of any units that cannot meet the revised NO_x MACT floor limits without mass retrofits and additional controls. As a result, there will be no large scale retrofit needs across the fleet of large MWCs to meet the final NO_x emission limits and less burden on existing sources to accomplish additional NO_x emissions reductions and retrofits about which commenters expressed concerns. Because we are finalizing the reevaluated NO_x MACT floor emission limits, the expected need to retrofit is limited in scope and should not result in significant limited retrofit resource availability or scheduling concerns that an averaging allowance would help alleviate.

Second, an analysis of the air pollution controls installed at large MWC facilities shows that almost all units are similarly equipped at any given facility. For NO_x, this means that, with very limited exceptions, each unit at a facility employs the same NO_x control device (*i.e.*, SCR, SNCR) or has a lower NO_x-generating design.¹⁰³ As a result, the EPA does not anticipate a need to average data from a better-controlled or performing source at a facility with that from a source without a similar control or at a lower performance to allow that lower-performing unit to operate. Specific comments on this topic and associated responses to the alternative percent reduction standards and removal of the emissions averaging allowance are in the Comment Response Document in the docket for this rulemaking.

¹⁰³ The only two exceptions are facilities where the owner or operator constructed a new large municipal waste combustor unit at a later date, and the new unit was subject to 40 CFR 60 subpart Eb NSPS, which does not contain an emissions averaging allowance.

3. Changes for Optional Continuous Monitoring

a. What did we propose with respect to optional continuous monitoring for the large MWC source category?

The EPA proposed to incorporate updated performance specifications for the optional use of a PM CEMS or Hg CEMS or the use of multi-metal, HCl, PCDD/PCDF CEMS in place of stack tests into the large MWC requirements. The proposed changes would update the 2006 final amendments to the large MWC rules, which revised the PM and Hg compliance testing requirements to allow the optional use of a PM CEMS or Hg CEMS in place of stack testing and allow the optional use of multi-metal, HCl, PCDD/PCDF CEMS in place of stack tests after performance specifications for these CEMS are promulgated.¹⁰⁴

The EPA also requested comment on whether the use of CEMS for compliance testing requires adopting alternative emission limits. We noted that more recent combustion rulemakings have included 30-day hourly rolling averages for pollutants measured with Hg CEMS (*e.g.*, Mercury Air Toxics Standards, 40 CFR part 63, subpart UUUU) or other optional CEMS (*e.g.*, CISWI NSPS and EG, 40 CFR part 60, subparts CCCC and DDDD). We also requested comment on whether the 30-day rolling hourly average is appropriate to use in the large MWC source category.

b. How did the revisions to the optional continuous monitoring provisions change for the large MWC source category?

The EPA is finalizing the proposed changes to continue to allow the optional use of CEMS in place of stack testing after performance specifications for the CEMS are promulgated and incorporate currently available applicable performance specifications. This allows flexibility for a facility to use CEMS for which performance specifications do not yet exist through the use of site-specific performance evaluation plans. Additionally, we are not finalizing 30-day averaging times for any of the required CEMS pollutant monitoring (CO, SO₂ and NO_x). The EPA at this time has insufficient information to assess the suitability and magnitude of a potential 30-day rolling average, as the data consists solely of the maximum four-hour or 24-hour average, recorded over the course of a reporting year. The EPA received comments mainly supporting the

¹⁰⁴ 71 FR 27326 (May 10, 2006).

allowance of CEMS for additional pollutants as an option, but some commenters urged the EPA to require monitoring using CEMS. Specific comments and associated responses to the optional use of CEMS and a 30-day hourly rolling average are in the Comment Response Document in the docket for this rulemaking.

4. Changes To Streamline Regulatory Text Within the Large MWC EG and NSPS

a. What did we propose with respect to streamlining regulatory text for the large MWC source category?

The EPA proposed changes to the regulatory format of the large MWC standards to be more accessible and easier to follow than the 1995 large MWC final rule. The proposed rule converted paragraph text describing emission standards and performance testing requirements to tables to facilitate easier implementation and understanding of the requirements. The EPA added these new tables to the ends of the subparts for these requirements, similar to the approach in other, recent CAA section 129 rulemakings.

b. How did the proposed revisions to streamline regulatory text change for the large MWC source category?

The EPA is finalizing changes to the regulatory format of the large MWC standards as proposed, with additional revisions to convert the text and tables to new subparts VVVV and WWWW, incorporate Federal Plain Language Guidelines, and establish section-numbering increments of five to allow or adequate numeric spacing to revise or add new regulatory text sections if needed in the future. The EPA received no substantive comments on streamlining the regulatory text.

5. Closing the 2007 Proposed Reconsideration of the Large MWC EG and NSPS

a. What did we propose in connection with closing the 2007 proposed reconsideration for the large MWC source category?

The EPA proposed to complete action on the March 20, 2007 reconsideration that the EPA had not finalized. In that 2007 notice, we announced our reconsideration of three aspects of the 2007 final rule based on stakeholder requests: operator stand-in provisions, data requirements for continuous monitors, and the status of operating parameters during the two weeks prior to Hg and PCDD/PCDF testing.¹⁰⁵ We

proposed that no changes to the 2007 final rule were warranted as a result of the reconsideration.¹⁰⁶ In the proposed rule for this action, the EPA reiterated the issues raised and discussed in the 2007 notice, acknowledged that we received only one supportive comment on these issues, and proposed to finalize the 2007 reconsideration, as previously proposed, with no changes to those three aspects of the rule, if the Agency received no adverse comments during the comment period for this rulemaking.¹⁰⁷

b. How did the proposed revisions change for the large MWC source category?

The EPA is making no additional changes to the final rule as a result of the proposed closing of the issues raised in the 2007 reconsideration, as recent comments received generally support closing these issues. We received comments both supporting the operator stand-in provisions as they exist and supporting revisions to the provisions to shorten the timeframe that provisionally certified operators may operate the MWC unit. Additionally, commenters supported not changing the mass carbon feed rate operating parameter provisions for PCDD/PCDF and Hg testing. Our response to these comments is in the Comment Response Document in the docket for this rulemaking.

6. Updating Operator Training Examination Requirements

a. What did we propose with respect to updating operator training exam requirements for the large MWC source category?

The EPA proposed to include and incorporate by reference the updated QRO in the final rulemaking. The 1995 large MWC final rule cited the 1994 version, QRO-1-1994. However, ASME released an updated version in 2005, identified as QRO-1-2005, which the EPA proposed to include in the regulatory text and incorporate by reference.

b. How did the proposed revisions change for the large MWC source category?

The EPA is promulgating as proposed with no additional changes to the final rule. We received one comment requesting increased training

requirements for MWC operators, supervisors, and personnel. Our response to this comment is in the Comment Response Document in the docket for this rulemaking. The reference to QRO-1-2005 has been added to 40 CFR 60.17(g), 60.5865, and 60.6420.

7. Revisions to Title V Permitting Requirements for Air Curtain Incinerators Burning Only Wood Waste, Clean Lumber, and Yard Waste

a. What did we propose in connection with title V permitting requirements for air curtain incinerators for the large MWC source category?

The EPA proposed to remove a title V permitting requirement in the 1995 large MWC final rule for air curtain incinerators that only burn wood wastes, yard wastes, and clean lumber (and that comply with applicable opacity limitations) and are not at a major source or subject to title V for other reasons.¹⁰⁸ The EPA noted in the proposed rule that CAA section 129(e), which requires title V permits for solid waste incineration units, does not apply to these ACI because they are not solid waste incineration units, as defined in CAA section 129(g)(1)(C). The proposed rule explained that the EPA nevertheless required title V permitting for these air curtain incinerators in previous rulemakings for various reasons, primarily because we believed that compliance with a title V permit was necessary to assure compliance with the opacity requirements established for such incinerators. However, we proposed to remove this requirement based on feedback from several States indicating that the title V requirements are unnecessarily burdensome and expensive for States to maintain and based on data showing that air curtain incinerators that burn exclusively wood waste, clean lumber, and yard waste are commonly at facilities that would not otherwise require a title V operating permit.

b. How did the proposed revisions concerning title V permitting requirements for air curtain incinerators change for the large MWC source category?

The EPA received comments supporting and opposing the removal of the title V permitting requirements for air curtain incinerators that only burn wood waste, clean lumber, and yard waste; comply with opacity limitations; and that are not at a major source or subject to title V for other reasons. After

¹⁰⁶ *Id.*

¹⁰⁷ 89 FR 4257 (Jan. 23, 2024). As a miscellaneous and superfluous observation, the EPA notes that the reconsideration petition issue concerning the Pb standard, which the EPA did not grant, is moot based on this final action to address the voluntary remand of the MACT floors, which results in more stringent Pb standards.

¹⁰⁵ 72 FR 13016 (Mar. 20, 2007).

¹⁰⁸ 89 FR 4258 (Jan. 23, 2024).

consideration of these comments and the exclusion of these ACI from the title V permitting requirement in section 129(e) as they are not “solid waste incineration units” as defined in 129(g)(1)(C), we are finalizing, as proposed, the removal of the title V permitting requirements for these units. As noted in the proposed rule, to the EPA’s knowledge, no large MWC facility also operates an air curtain incinerator that burns exclusively wood waste, clean lumber, and yard waste. Our response to comments on the removal of this requirement is in the Comment Response Document in the docket for this rulemaking.

8. Electronic Reporting

a. What did we propose in terms of electronic reporting for the large MWC source category?

The EPA proposed that owners and operators of large MWC units submit electronic copies of required performance test reports, performance evaluation reports, semiannual compliance reports, annual reports, and certain notifications through CDX using CEDRI. We proposed that owners or operators must collect performance test results using test methods that ERT supports, as listed on the ERT website at the time of the test; submit theses in the format generated by the ERT or an electronic file consistent with the XML schema on the ERT website; and submit other performance test results in PDF using the attachment module of the ERT.¹⁰⁹ We also proposed that owners or operators must submit performance evaluation results of CEMS measuring RATA pollutants in the format generated by the ERT or an electronic file consistent with the XML schema on the ERT website, and submit other performance evaluation results in PDF using the attachment module of the ERT. The proposed rule would require owners or operators to submit certain other notifications as a PDF upload in CEDRI. For semiannual and annual reports, the EPA proposed that owners and operators use an appropriate spreadsheet template (provided in the docket for review) to submit information to CEDRI.

The EPA proposed two broad circumstances in which the Agency may provide electronic reporting extensions: first, outages of CDX or CEDRI that preclude an owner or operator from accessing the system and submitting required reports, and second, force majeure events, defined as events that

will be or have been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevent an owner or operator from complying with the requirement to submit a report electronically.¹¹⁰

b. How did the proposed revisions for electronic reporting change for the large MWC source category?

Commenters generally supported the proposed requirements for electronic reporting. One commenter requested flexibility on the effective dates for electronic reporting, and another commenter suggested that the EPA require reporting of all large MWC CEMS data in averaging times that an entity can compare to the standard. To address this, the EPA has revised the regulatory text at 40 CFR 60.6090(c)(2) and 60.6630(c)(2) to add the requirement that owners or operators report all block averages during the reporting period as well as identify the periods of warmup, startup, and shutdown during which they collect all CEMS data and the large MWC is operating. We are not changing the effective dates for electronic reporting in response to comments received. Our complete responses to these comments are in the Comment Response Document in the docket for this rulemaking.

9. Technical and Implementation Corrections

a. What did we propose in terms of technical and implementation corrections for the large MWC source category?

The EPA proposed corrections and clarifications to the NSPS and EG that the Agency and stakeholders identified during implementation of the previous regulations, as follows:

1. Applicability and Delegation of Authority

- Adding 40 CFR 60.6300(d) and 60.5705 to clarify that large MWC units subject to 40 CFR part 60, subpart WWW are not subject to 40 CFR part 60, subpart Db. This makes the NSPS and EG consistent with 40 CFR part 60, subpart Db, which exempts large MWC units from that subpart.

- Revising 40 CFR 60.6255 to clarify that the EPA Administrator retains approval of certain exemption claims in 40 CFR 60.6305(a), (b), (c), (d), and (g); approval of major alternatives to test methods and monitoring; approval of waivers of recordkeeping; performance test and data reduction waivers; and approval of alternatives to electronic

reporting to the EPA and that the approval authority does not transfer to a State upon delegation of authority to that State to implement an approved State plan.

- Revising 40 CFR 60.5710 to clarify that the EPA Administrator retains sole authority to issue the federally enforceable 11 tpd limit for exemptions in 40 CFR 60.5700(a) and the 30 percent municipal waste limit for co-fired units in 40 CFR 60.5700b(g).

- Revising 40 CFR 60.5710(a)(4) to correct a typographical error and clarify that the EPA Administrator retains sole authority to review and approve demonstrations that establish the relationship between carbon dioxide (not CO) and oxygen as part of initial and annual performance tests.

2. Definitions

- Amending the definition of “federally enforceable” in 40 CFR 60.6145 to correct a cross-referencing error, *i.e.*, to reference 40 CFR 51.165 and 51.166 instead of 40 CFR 51.18 and 51.24.

3. Performance Testing and Monitoring

- Revising 40 CFR 60.5960 and 60.5970(b) to correct an oversight and clarify that the revised testing schedule (once per calendar year but no less than nine months and no more than 15 months following the previous test) also applies to fugitive ash and HCl testing.

4. Reporting and Recordkeeping Requirements

- Revising 40 CFR 60.6255 to clarify that State plans are due on March 10, 2027.

- Adding 40 CFR 60.6045(h)(i) to clarify that owners or operators must record all data for continuous monitoring systems using “local time” for the location of the affected facility unless the Administrator approves an alternative time system.

- Revising 40 CFR 60.6090(c) to require owners and operators to additionally report the annual arithmetic average of all hourly values recorded during operations for the reporting year.

b. How did the proposed technical and implementation corrections change for the large MWC source category?

The EPA received minimal comments on these proposed revisions, and is not making significant changes to the final rule from the proposed clarifications and corrections. The EPA has converted the proposed clarifications and corrections to text in the final rule at 40 CFR part 60, subparts VVVV and WWW and updated citations and

¹⁰⁹ See Electronic Reporting Tool (ERT): <https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>.

¹¹⁰ See 40 CFR 63.2 (definition of force majeure).

cross-references accordingly. The comments received on these proposed changes mainly focused on other suggestions for monitoring and testing requirements of the rule. Our response to these comments is in the Comment Response Document in the docket for this rulemaking.

V. Summary of Cost, Environmental and Economic Impacts, and Additional Analyses Conducted

A. What are the affected facilities?

The large MWC source category comprises units with a capacity greater than 250 tpd of MSW. The EPA estimates the current fleet of large MWC units to include 152 units at 57 facilities nationwide. Of these, 129 (85 percent) are mass-burn units, and the remaining are refuse-derived fuel systems. Approximately 30 percent of currently operating large MWCs are subject to 40 CFR part 60, subpart Eb (2006 NSPS limits), with the remaining subject to 40

CFR part 60, subparts Ea (NSPS limits for units constructed after December 20, 1989, and on or before September 20, 1994), or Cb (EG for units constructed before September 20, 1994). The EPA estimates that there are 22 municipally owned or operated facilities, with a total of 62 municipally owned or operated large MWC units. As discussed in section III of this preamble, the final rule creates new subparts VVVV (NSPS for facilities for which construction is commenced after January 23, 2024) and WWWW (EG for units constructed on or before January 23, 2024), which will replace subparts Ea, Eb, and Cb, once effective. All units currently subject to subparts Ea, Eb, and Cb will need to be in compliance with 40 CFR part 60, subpart WWWW not later than three years after the Administrator approves the applicable State plan but not later than five years after the EPA promulgates the guidelines, as required by CAA section 129(b)(2).

B. What are the air quality impacts?

The EPA estimates this final rule will result in 3,269 tpy reduction in regulated pollutants from existing sources through implementation of the final emission limits. The EPA estimated emissions reductions for all units that would likely need add-on controls, improvements to existing control devices, or increased carbon or lime injection rates to meet a given limit.¹¹¹ Because the EPA assumes that good combustion practices are the most effective control for CO, compared to add-on controls or control improvements, the Agency assessed no additional control costs or associated emission reductions for CO.¹¹² For all other pollutants, the EPA assumed that units would comply with emission limits by operating the control measure(s) described in the large MWC cost memorandum.¹¹³ Table 7 of this preamble presents these reductions.

TABLE 7—ESTIMATED ANNUAL EMISSIONS REDUCTIONS FOR THE FINAL RULE

Pollutant ²	Unit of measure	Reductions achieved through final rule implementation
Cd	ton/yr	0.0024
Pb	ton/yr	0.0409
PCDD/PCDF	g/yr	4.0
HCl	ton/yr	641
NO _x	ton/yr	2,630
Total ¹	ton/yr	3,269

¹ Values have been rounded to three significant figures. Rows may not appear to sum correctly due to rounding.

² Hg or SO₂ have no emission reductions.

Indirect or secondary air emissions can result from the increased energy requirements associated with the operation of new control devices (*i.e.*, increased emissions of criteria pollutants from the power plants supplying that additional electricity). The EPA expects that existing units still operating electrostatic precipitators for particulate control may need to retrofit with a fabric filter control device, but we expect the difference in energy needs for each of these devices to be minimal. Further, any improvements made to existing fabric filters will not be significant enough to require a larger fan, meaning that electricity consumption would remain unchanged. For NO_x control, most units already have SNCR, so further control, if

needed, could require retrofitting with ASNCR or LNTM NO_x technology. Owners or operators would likely use existing SNCR equipment for these retrofit options, meaning any additional power consumption requirements would be minimal. In the rare case where a unit goes from no SNCR to SNCR, the unit's own generating capabilities, rather than through fossil fuel combustion, would supply the minimal amount of power required to pump reagent to the furnace. We expect sources to further control Hg and PCDD/PCDF through increased carbon injection for units that already have activated carbon injection systems or by installing new activated carbon injection systems.

We expect increases in power demand for existing systems and demand for

new systems to be minimal and met with a small fraction of the power generation from the facility. Similarly, we expect power demand increases for acid gas control systems to be minimal and met with power that facilities are already generating. Sources typically control acid gases with a dry sorbent injector scrubber or spray dryer absorber. Additional control (*i.e.*, increased sorbent injection rates in the existing control device) would require only minimal increases in sorbent conveying equipment power needs. If an owner or operator determined a need for a retrofit to a CFBS to meet the standards for acid gases, this retrofit could provide a small savings in sorbent injection and power consumption needs. A CFBS is generally more

¹¹¹ See memorandum entitled *Emission Reduction Estimates for Existing Large MWCs Final Rule Amendments*, Docket ID No. EPA-HQ-OAR-2017-0183.

¹¹² Further, the annual maximum data for the majority of sources do not reflect actual

performance. As noted in section IV.B of this preamble, the EPA is finalizing significant changes to the continuous monitoring reporting provisions so that we have access to continuous data. Therefore, an assessment of any presumed emissions reductions in comparison to the

reevaluated MACT floor for CO is not possible at this time.

¹¹³ See memorandum entitled *Compliance Cost Analyses for Large MWC Final Rule Amendments*, Docket ID No. EPA-HQ-OAR-2017-0183.

effective at acid gas control for the same amount of sorbent and at a power consumption equal to or less than that of spray dryer absorbers.

As a result of these assessments, the reevaluated emission limits for large MWCs are unlikely to have any consequential secondary air impacts because the increase in energy requirements due to new control measures is minimal, and power already

being generated at the plant would support what little additional energy may be required. For the same reason, impacts on the overall nationwide energy requirements are expected to be negligible.

C. What are the cost impacts?

We have estimated compliance costs for all existing units to add the necessary controls to meet the final

standards.¹¹⁴ We anticipate an overall capital investment of approximately \$90 million, with an associated total annualized cost (including operating and maintenance costs) of approximately \$26 million (in 2024 dollars). Table 8 of this preamble provides the cost breakdown by pollutant grouping and regulatory option.

TABLE 8—COMPLIANCE COSTS OF FINAL RULE
[2030–2049]¹

Pollutant grouping	Final rule estimate	
	Total capital cost (\$)	Total annualized cost (\$/yr) ¹
Cd, Pb	\$19,000,000	\$1,100,000
Dioxins/Furans (PCDD/PCDF)	0	0
HCl	0	11,000,000
Nitrogen Oxides (NO _x)	71,000,000	14,000,000
Total control costs	\$90,000,000	\$26,000,000

¹ Includes operating and maintenance costs. We have annualized capital costs over 20 years at an interest rate of 7.5 percent unless noted otherwise, except for particulate capital costs which we have annualized over 15 years at the same interest rate to reflect equipment life assumptions. (See *Compliance Cost Analyses for Large MWC Final Rule Amendments* memorandum in the docket for this rulemaking for more details.)

Table 9 summarizes the cost effectiveness of the final rule amendments by pollutant category. As these pollutant categories are linked to inseparable control technology assumptions, whether by rule construction or by the nature in which specific controls may capture multiple pollutants, the information is not

presented or calculated with any additional granularity. These cost effectiveness estimates also assume that the costs of the rule and that the emissions reductions achieved are accurately estimated. If the costs were underestimated, these cost effectiveness estimates would be underestimated by an equivalent ratio, and the reverse

would be true as well. If the emissions estimates were overestimated, the potential for which is discussed in the RIA with specific attention to NO_x, the cost effectiveness estimates would be underestimated, and the reverse would be true as well.

TABLE 9—COST EFFECTIVENESS OF THE FINAL RULE AMENDMENTS

Pollutant ²	Reductions achieved through final rule implementation	Cost effectiveness
Cd, Pb	0.043 tpy	² \$26,000,000
Dioxins and Furans (PCDD/PCDF)	4.0 g/yr	0
HCl	641 tpy	15,700
Nitrogen Oxides (NO _x) ¹	2,630 tpy	5,380

¹ Values have been rounded to three significant figures.

² These are small incidental reductions and the EPA is not regulating beyond the MACT floor.

D. What are the economic impacts?

The EPA conducted an economic impact analysis for the final rule in the Regulatory Impact Analysis (RIA), which is available in the docket for this action. This analysis took the form of a “cost-to-sales” analysis. If the compliance costs are small relative to the receipts of the affected companies, the impact analysis may consist of a calculation of annual (or annualized) costs as a percent of sales for affected parent companies. The EPA often applies this type of analysis when the

Agency considers a partial equilibrium or more complex economic impact analysis approach unnecessary given the expected size of the impacts. The annualized cost per sales for a company represents the maximum price increase in the affected product or service needed for the company to completely recover the annualized costs imposed by the regulation, assuming no changes in affected services or outputs.

The EPA estimated the annualized compliance cost that the Agency expects each owner to incur and determined the estimated cost-to-sales ratio for affected

units. To reflect the total impact of the rule on the regulated entities, the EPA aggregated these costs to the owner level and compared the costs to all jointly owned and operated facilities to the ultimate parent company revenues for all regulated units and facilities. The estimated cost-to-sales ratio for affected entities, none of which are small according to Small Business Administration size standards, is 0.38 percent of annual revenues for the regulated entities. This ratio only exceeds one percent for two facilities and does not exceed 2.1 percent for any

¹¹⁴ See memorandum entitled *Compliance Cost Analyses for Large MWC Final Rule Amendments*,

Docket ID No. EPA–HQ–OAR–2017–0183. Final rule cost estimates in Table 8 reflect updates to cost

inputs for hydrated lime and landfill tipping fees received during the public comment period.

entity. The EPA expects the final rule to generate annual compliance cost increases greater than one percent of annual revenue for two out of 21 ultimate parent entities. Of these, one is municipally owned, and one is privately owned with 32 units under one parent company. The average cost-to-sales ratio of the remaining 19 entities is approximately 0.21 percent. Therefore, the projected economic impacts of the expected compliance costs of the final rule are likely to be relatively small as compared to parent company revenue. These costs are also less than half of those estimated for the 2024 proposed rule, and given the cost to sales ratios just discussed, these estimates are characterizable as small relative to the revenues of the owners within the affected industry. Consequently, the EPA does not anticipate that this regulatory action will lead to perceptible disruptions to the industry or significant changes in consumer welfare through increases in billing or reductions in service.

E. What are the benefits?

Pursuant to Executive Order 12866, the RIA for this final action analyzes the benefits associated with the projected emissions reductions under this final rule to inform the EPA and the public about these projected impacts. The EPA projects this final rule to reduce emissions of HAP and NO_x from existing MWCs nationwide. The EPA expects control measures to reduce about 0.0433 tpy of HAP metal emissions, including emissions of Cd, Pb, and PCDD/PCDF. The emission reductions estimated for this final rule occur only for existing sources since the EPA does not expect this rule to impact any new, reconstructed, or modified large MWCs. The control measures to reduce HAP and NO_x emissions in this final rule could improve air quality and the health of persons living in surrounding communities.

The EPA is obligated to present the agency’s best scientific understanding

and the implications of that science when developing policies and regulations. However, the EPA’s analytical practices may not have presented the full range of uncertainties and associated confidence level regarding the potential benefit estimates from reduction in exposure to fine particulate matter (PM_{2.5}) and ozone. In addition, the science regarding the exposure, health effects from exposure and valuation of reduction in health effect are evolving with better data and methods, especially at low concentrations of PM and ozone. The EPA’s use of benefit per ton (BPT) monetized values introduces additional uncertainty. Although developed as a screening tool when full-form photochemical modeling was not feasible, the BPT approach reduces complex spatial and atmospheric relationships and may be more suited to model emissions that are geographically more uniform and species better mixing, thereby adding uncertainty associated with those estimates. Some of the sources of uncertainties include the set of assumptions used in projecting the health impact of reducing particulate matter. These projections are based on a series of models that take into account emissions changes, resulting in distributions of changes in ambient air quality, the estimated reductions in health effects from changes in exposure, and the composition of the population that will benefit from the reduced exposure. Each component includes assumptions, each with varying degrees of uncertainty.

In addition, the EPA historically provided point estimates rather than ranges of emission-related effects or only quantifying emissions when monetizing proved to be too uncertain. Therefore, to address these concerns, the EPA is refraining in providing primary estimates resulting from changes in PM_{2.5} and ozone exposure resulting from changes in NO_x emissions but will continue to quantify

the emissions until the Agency is confident enough in the modeling to robustly monetize those impacts.

VI. Statutory and Executive Order Reviews and 1 CFR Part 51

Additional information about these statutes and Executive Orders can be found at <https://www.epa.gov/laws-regulations/laws-and-executive-orders>.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is a “significant regulatory action” as defined under section 3(f)(1) of Executive Order 12866. Accordingly, the EPA submitted this action to the OMB for Executive Order 12866 review. Documentation of any changes made in response to the Executive Order 12866 review is available in the docket. The EPA prepared an analysis of the potential costs and benefits associated with this action. This analysis, *Regulatory Impact Analysis for the Final Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Large Municipal Waste Combustors*, is also available in the docket.

Table 10 of this preamble presents the estimated PV and EAV of the projected compliance costs of the final rule in 2024 dollars discounted to 2025.

As explained in detail in the RIA, the EPA was unable to quantify and monetize the potential impacts associated with reductions of HAP.

The compliance costs presented in Table 10 are the estimated costs of control technologies and measures applied to meet the emissions limits in the final rule. In simple terms, these costs are an estimate of the increased expenditures for large MWCs to implement the final requirements. These cost estimates include the PRA cost of subpart WWWW (detailed below in section VI.C).

TABLE 10—PROJECTED COMPLIANCE COSTS OF THE FINAL RULE, 2030 TO 2049
[Millions of 2024 dollars, discounted to 2025] ¹

	3% Discount rate ¹	7% Discount rate ¹
Present Value	\$330	\$210
Equivalent Annualized Value	25	28

¹ Values have been rounded to two significant figures. Rows may not appear to sum correctly due to rounding.

The projected compliance costs have a present value of \$330 million using a three percent discount rate and \$210 million using a seven percent discount

rate. The EAVs of these values are \$25 million and \$28 million respectively.

These results present an incomplete overview of the potential effects of the final rule because important categories

of benefits—including benefits from reducing HAP, benefits from reducing PM, benefits from reducing ozone, and the benefits from increased transparency of emission data—were not monetized

and are therefore not reflected in the cost table. We anticipate that taking non-monetized effects into account would have shown the final rule to have a net benefit, which is not reflected in this table.

B. Executive Order 14192: Unleashing Prosperity Through Deregulation

This action is considered an Executive Order 14192 regulatory action. For regulatory accounting purposes, the estimated present value and annualized value of the costs of this rule are \$210 million and \$28 million, respectively (7% discount rate, 2024\$, 2024 present value year, perpetuity time horizon). Details on the estimated costs of this final rule can be found in EPA's analysis of the potential costs and benefits associated with this action.

C. Paperwork Reduction Act (PRA)

The information collection activities in this final rule have been submitted for approval to the OMB under the PRA. The Information Collection Request (ICR) documents that the EPA prepared have been assigned EPA ICR number 1847.11 (OMB Control number 2060–0390) for subpart WWWW (formerly subpart Cb) and EPA ICR number 1506.17 (OMB Control number 2060–0210) for subpart VVVV (formerly subparts Ea and Eb). You can find a copy of the ICR documents in the docket for this rule, and they are briefly summarized here. The information collection requirements are not enforceable until OMB approves them.

These regulations apply to facilities that own and operate MWC units with a combustion capacity greater than 250 tpd of MSW that were constructed on or before January 23, 2024 (subject to 40 CFR part 60, subpart WWWW) and to facilities for which construction is commenced after January 23, 2024 (subject to 40 CFR part 60, subpart VVVV). The reporting and recordkeeping requirements discussed here result from the EG that apply to large MWCs covered by the EPA-approved and effective State plans and, where a State plan has not been approved, large MWCs covered by the Federal plan, and large MWCs subject to the NSPS. This information is being collected to ensure compliance with 40 CFR part 60, subparts WWWW and VVVV. In general, all EG and NSPS require initial notifications, performance tests, and periodic reports by the owners or operators of the affected facilities. Owners or operators of the affected facilities are also required to maintain records of the occurrence and duration of any SSM event in the operation of an affected facility, or any

period during which the monitoring system is inoperative. These notifications, reports, and records are essential in determining compliance and are required of all affected facilities subject to EG or NSPS.

The final EG and NSPS remove SSM exclusions and exemptions. These amendments also streamline regulatory language, revise recordkeeping requirements, require electronic reporting, reestablish new and existing source applicability dates, clarify requirements for air curtain incinerators, correct certain typographical errors, make certain technical corrections, and clarify certain provisions in the NSPS and EG.¹¹⁵

For the final EG in 40 CFR part 60, subpart WWWW, the EPA is revising all emission limits, except CO for two subcategories of combustors and for NO_x for two subcategories of combustors. Similarly, for the final NSPS in 40 CFR part 60, subpart VVVV, the EPA is revising all emission limits. The ICR for the final EG (EPA ICR number 1847.12) has been adjusted from the proposed rule to incorporate burden for Designated Administrators (States) to submit initial State plans and notifications of public hearings for State plans to incorporate the requirements of subpart WWWW.

Because the EPA is revising applicability dates and ultimately reserving subpart Ea, the burden associated with subpart WWWW includes the burden for units currently subject to subparts Ea and Eb combined with the burden for those currently subject to subpart Cb. Although no new sources are currently expected to commence construction within the next three years, the burden a new source would incur under subpart VVVV would be very similar to the current subpart Eb burden. That is, the burden would be the total of the existing new source burden (such as site selection analysis/report, initial notifications, etc.) associated with subpart Eb plus the small amount of incremental burden due to electronic reporting associated (familiarization with CEDRI and electronic data submittal) with subpart VVVV. Therefore, the EPA estimates the overall burden for a new source to comply with the monitoring, reporting and recordkeeping requirements of the NSPS as 3,800 hours at a total cost of \$410,000.

Respondents/affected entities: Large MWC units constructed on or before January 23, 2024, or that are

reconstructed or modified prior to September 10, 2026.

Respondent's obligation to respond: Mandatory (40 CFR part 60, subpart WWWW).

Estimated number of respondents: 72.

Frequency of response: Annual.

Total estimated burden: 3,670 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: \$228,000 (per year), includes no annualized capital or operation and maintenance costs.

For subpart VVVV, the EPA does not anticipate any construction of new units or NSPS-triggering reconstruction or modifications of existing units within the next 3 years.

Respondents/affected entities: Large MWC units constructed, modified, or reconstructed after January 23, 2024.

Respondent's obligation to respond: Mandatory (40 CFR part 60, subpart VVVV).

Estimated number of respondents: 0.

Frequency of response: Annual.

Total estimated burden: 0 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: \$0 (per year), includes no annualized capital or operation and maintenance costs.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9. When OMB approves this ICR, the Agency will announce that approval in the **Federal Register** and publish a technical amendment to 40 CFR part 9 to display the OMB control number for the approved information collection activities contained in this final rule.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. We have estimated that no small entities would be affected by the final changes to the EG and NSPS. For more information, please refer to the RIA for the final rule.

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million (adjusted annually for inflation) or more (in 1995 dollars) and described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The costs involved in this action are estimated not to exceed \$187

¹¹⁵ See section 12b of the Supporting Statement to the ICRs for the final rulemaking in the docket for more details.

million in 2024\$ (\$100 million in 1995\$ adjusted for inflation using the GDP implicit price deflator) or more in any one year.

F. Executive Order 13132: Federalism

Under Executive Order 13132, the EPA may not issue an action that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal Government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or the EPA consults with State and local officials early in the process of developing the proposed action.

The EPA has concluded that this action has federalism implications because it imposes substantial direct compliance costs on State or local governments, and the Federal government will not provide the funds necessary to pay those costs. The EPA consulted with State and local officials early in the process of developing this action to permit them to have meaningful and timely input into its development. The EPA conducted federalism/UMRA consultations, conducted additional outreach meetings, and considered input and additional letters received from a number of State and local government organizations in the development of this rule, as described in the preamble to the proposed rule.

The EPA provides the following federalism summary impact statement as required by section 6(b) of Executive Order 13132. Based on the estimates in the EPA's RIA for this action, the regulatory option may have federalism implications because the action may impose approximately \$28 million (2024 dollars) in total annualized cost (including operating and maintenance costs), with approximately 22 large MWC facilities, or 40 percent of the total large MWC facility population, being owned by a State or local government.

The EPA consulted with State and local officials early in the process of developing the proposed action to permit them to have meaningful and timely input into its development. The EPA conducted a federalism/UMRA consultation outreach briefing on March 16, 2023. Invited participants included representatives from the National Governors Association, the National Conference of State Legislatures, the Council of State Governments, the National League of Cities, the U.S. Conference of Mayors, the National Association of Counties, the International City/County Management Association, the National Association of

Towns and Townships, the County Executives of America, and the Environmental Council of States. Additionally, the Agency invited representatives from the National Association of Clean Air Agencies, the Association of Air Pollution Control Agencies, the Association of State and Territorial Solid Waste Management Officials, and other groups representing State and local government professionals. Due to interest in the proposal, the EPA held additional outreach meetings on April 17, 2023, and April 27, 2023. The consultations included discussion of a preliminary listing of State or municipal-owned large MWCs, the elements of the rulemaking, reevaluation of the MACT floors, the five-year review, potential costs and air emission impacts of regulatory options being considered, and other issues such as SSM provisions.

In accordance with the requirements of Executive Order 13132, and consistent with the EPA's policy to promote communications between the EPA and State and local governments, the EPA specifically solicited comment on the proposed action from State and local officials. The EPA received comments from 19 entities representing State and local governments. The EPA submitted these letters to the pre-proposal non-rulemaking docket.¹¹⁶

Several themes emerged from State and local government comments. Commenters raised concerns regarding the timeliness of the five-year review, lack of a residual risk review for the existing rules, cost estimates for the regulatory options, impacts of rulemaking on operations of MWCs and associated taxpayer impacts, and both support for and opposition to the NO_x five-year review regulatory option.

For the final rule, in response to stakeholder comments, the EPA has refined the cost estimates for acid gas control to reflect higher lime costs and landfill tipping fees to reflect regional differences and has maintained the longest compliance deadline for implementing the new emission standards allowable by the CAA. Additionally, the EPA is not finalizing the standards for NO_x based on the five-year review results for existing sources and instead is finalizing the emission limits based on MACT for the subcategory of combustor. Moreover, the EPA based the remaining standards on the MACT floor (as reevaluated, but with additional 1990–1995 data provided during both comment periods) and as such expects these standards to

be the least costly regulatory options for State and local owners and operators of large MWCs.

Comments submitted to the docket in response to the proposed rule (*i.e.*, outside of the UMRA consultations) largely contained the same types of comments as in the UMRA consultation process but often with an expanded discussion of commenters' concerns. Our response to these comments is in the Comment Response Document in the docket for this rulemaking.

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

This action does not have Tribal implications as specified in Executive Order 13175. The EPA is not aware of any large MWC units owned or operated by Tribal governments. Thus, Executive Order 13175 does not apply to the final rule.

Consistent with the EPA Policy on Consultation and Coordination with Indian Tribes, the EPA consulted with Tribal officials during the development of this action. A summary of that consultation is provided here. During the development of this action, the EPA offered pre-proposal government-to-government consultation with Tribal nations. No Tribal nations requested consultation with the EPA. On January 11, 2024, the EPA emailed a consultation letter with information to Tribal nations explaining how to comment on the proposed rulemaking and how to request a consultation with the EPA. The EPA held a roundtable with the National Tribal Air Association on January 25, 2024, to provide an overview of the proposed rule. This action will not have substantial direct costs or impacts on the relationship between the Federal Government and Indian Tribes or on the distribution of power and responsibilities between the Federal Government and Indian Tribes, as specified in Executive Order 13175.

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

Executive Order 13045 directs federal agencies to include an evaluation of the health and safety effects of the planned regulation on children in federal health and safety standards and explain why the regulation is preferable to potentially effective and reasonably feasible alternatives. This action is subject to Executive Order 13045 because it is a significant regulatory action under section 3(f)(1) of Executive Order 12866, and the EPA believes the environmental health or safety risk addressed by this action may have a

¹¹⁶ Docket ID No. EPA-HQ-OAR-2022-0920.

disproportionate effect on children. The protection offered by this action may be especially important for children because the rule has considerations for human health, and children have increased susceptibility due to their physiology and continuing development of organ systems. Accordingly, we have evaluated the environmental health or safety effects of Cd, Hg, Pb, PM, HCl, PCDD/PCDF, PM_{2.5} and O₃ on children.

This action also is subject to the EPA's Policy on Children's Health because the rule has considerations for human health. Accordingly, we have evaluated the environmental health effects of Cd, Pb, HCl, PCDD/PCDF, PM_{2.5} and O₃ to early life exposure (the life stages from conception, infancy, early childhood and through adolescence until 21 years of age) and lifelong health.¹¹⁷

In summary, the RIA found that children may be more vulnerable to corrosive agents (such as HCl) than adults because of the relatively smaller diameter of their airways. Children may also be more vulnerable to gas exposure because of increased minute ventilation per kg and failure to evacuate an area promptly when exposed. Lead is associated with toxic effects in every organ system including adverse renal, cardiovascular, hematological, reproductive, and developmental effects. However, the major target for Pb toxicity is the nervous system, both in adults and children. Children are more sensitive to the health effects of Pb than adults. No safe blood Pb level in children has been determined. At lower levels of exposure, Pb can affect a child's mental and physical growth. Fetuses exposed to Pb in the womb may be born prematurely and have lower weights at birth. Exposure in the womb, in infancy, or in early childhood also may slow mental development and cause lower intelligence later in childhood. There is evidence that these effects may persist beyond childhood.¹¹⁸ PCDD/PCDF "are known to be a developmental toxicant in animals, causing skeletal deformities, kidney defects, and weakened immune responses in the offspring of animals exposed to 2,3,7,8-TCDD during pregnancy."¹¹⁹ Animal studies indicate that Cd may cause adverse

developmental effects, including reduced body weight, skeletal malformation, and altered behavior and learning.¹²⁰ Nonfatal morbidity was not quantified and monetized for other nervous system effects (e.g., autism), reproductive and developmental effects (e.g., low birth weight, pre-term births, etc.). Nonfatal morbidity from exposure to ozone was quantified and monetized for asthma onset (ages 0–17), asthma symptoms/exacerbation (ages 5–17), allergic rhinitis (hay fever) symptoms (ages 3–17), and school absence days (age 5–17) in the Ozone ISA. Nonfatal morbidity was not quantified and monetized for reproductive and developmental effects.

Further, this action does not describe the health impacts that are associated with reduced NO_x emissions, including those for children.¹²¹ The EPA expects these benefits are positive. Sections 3.2 Human Health Effects from Exposure to Hazardous Air Pollutants (HAP), 3.3.

This action is preferred over other regulatory options analyzed because this provides society with a substantial net gain of health and environmental benefits at the lowest cost to industry and local government entities that operate large municipal waste combustors. Furthermore, the EPA's *Policy on Children's Health* also applies to this action.

I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not a "significant energy action" because the final rule is not likely to have a significant adverse effect on the supply, distribution, or use of energy. There would be no change in energy consumption resulting from the final rule, and the EPA does not expect any price increase for any energy type. We also expect that there would be no impact on the import of foreign energy supplies, and no other adverse outcomes are expected to occur with regard to energy supplies.

J. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR Part 51

This rulemaking involves technical standards. The EPA previously conducted searches to determine if there are voluntary consensus standards (VCS) that are relevant to this action and

reviewed any potential standards to determine the practicality of the VCS for these rules.¹²² The EPA has decided to use these methods as acceptable alternatives to EPA test methods for the purposes of these rules, which are summarized as follows:

- The manual portion only and not the instrumental portion of VCS, American National Standard Institute (ANSI)/ASME PTC 19–10–1981 Part 10 (2010), "Flue and Exhaust Gas Analyses," is an acceptable alternative to EPA Methods 3B, 6, 6A, 6B, 7, and 7C. The EPA incorporates by reference VCS ANSI/ASME PTC 19.10–1981 Part 10, "Flue and Exhaust Gas Analyses," a method for quantitatively determining the gaseous constituents of exhausts resulting from stationary combustion and includes a description of the apparatus, and calculations which are used in conjunction with Performance Test Codes to determine quantitatively, as an acceptable alternative to EPA Methods 3B, 6, 6A, 6B, 7, and 7C of appendix A to 40 CFR part 60 for the manual procedures only and not the instrumental procedures. The ANSI/ASME PTC 19.10–1981 Part 10 method incorporates both manual and instrumental methodologies for the determination of oxygen content. The manual method segment of the oxygen determination is performed through the absorption of oxygen. This method is available at the American National Standards Institute (ANSI), 1899 L Street NW, 11th floor, Washington, DC 20036 and the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016–5990.¹²³ The standard is available to everyone at a cost determined by ANSI/ASME. The cost of obtaining this method is not a significant financial burden, making the methods reasonably available.

- The voluntary consensus standard ASTM D7520–16, "Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere," is an acceptable alternative to EPA Method 9 only if the following conditions are followed:

1. During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520–16, you or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue

¹¹⁷ See EPA Policy on Children's Health: <https://www.epa.gov/children/childrens-health-policy-and-plan>.

¹¹⁸ See Agency for Toxic Substances and Disease Registry: <https://www.atsdr.cdc.gov/2020-annual-report/php/index.html>.

¹¹⁹ Agency for Toxic Substances and Disease Registry (ATSDR). Toxicological Profile for Chlorinated Dibenzop-Dioxins. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.

¹²⁰ Agency for Toxic Substances and Disease Registry: <https://www.atsdr.cdc.gov/2020-annual-report/php/index.html>.

¹²¹ <https://www.epa.gov/isa/integrated-science-assessment-isa-oxides-nitrogen-health-criteria>; <https://www.epa.gov/isa/integrated-science-assessment-isa-sulfur-oxides-health-criteria>.

¹²² See additional discussion of the preamble to the proposed rule.

¹²³ See <https://www.ansi.org> and <https://www.asme.org>.

sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).

2. You must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520–16.

3. You must follow the recordkeeping procedures outlined in 40 CFR 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.

4. You or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of any one reading and the average error must not exceed 7.5 percent opacity.

5. This approval does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software, and operator in accordance with ASTM D7520–16 and conditions 1 to 4 above is on the facility, DCOT operator, and DCOT vendor. The ASTM D7520–16 method describes procedures to determine the opacity of a plume, using digital imagery and associated hardware and software, where opacity is caused by PM emitted from a stationary point source in the outdoor ambient environment. The opacity of emissions is determined by the application of a DCOT that consists of a digital still camera, analysis software, and the output function's content to obtain and interpret digital images to determine and report plume opacity. This method is available at ASTM International, 1850 M Street NW, Suite 1030, Washington, DC 20036.¹²⁴ The standard is available to everyone at a cost determined by ASTM. The cost of obtaining this method is not a significant financial burden, making the method reasonably available.

- The EPA is incorporating by reference the VCS ASTM D6784–24, “Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method),” as an acceptable alternative to EPA Method 29 (portion for Hg only) as a method for measuring elemental, oxidized, particle-bound, and total Hg concentrations ranging from approximately 0.5 to 100 micrograms per normal cubic meter. This test

method describes equipment and procedures for obtaining samples from effluent ducts and stacks, equipment and procedures for laboratory analysis, and procedures for calculating results. ASTM D6784–24 allows for the use of either an EPA Method 17 sampling configuration with a fixed (single) point where the flue gas is not stratified, or an EPA Method 5 sampling configuration with a multi-point traverse. This updated 2024 version of the standard includes additional procedures that make the method applicable to sources with high levels of HCl and low levels of SO₂ in the flue gas. These methods are available at ASTM International, 1850 M Street NW, Suite 1030, Washington, DC 20036.¹²⁵ The standards are available to everyone at a cost determined by ASTM. The costs of obtaining these methods are not a significant financial burden, making the methods reasonably available.

- The EPA also cited the use of facility operator certification standard ASME QRO–1–2005 (R2015), Standard for the Qualification and Certification of Resource Recovery Facility Operators. The 1995 rule cited a certification for facility operator ASME QRO–1–1994. Since that time, ASME has released a 2005 version as the most recent one available. This certification standard is intended as a qualification and certification program for shift supervisors and chief facility supervisors at large MWC facilities and includes both provisional and full certification levels. Knowledge areas covered by the certification standard include, but are not limited to, refuse and ash handling, combustion processing, steam cycle, electrical, environmental controls, safety, and administration (chief facility operator only). This standard is available at the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016–5990.¹²⁶ The standard is available to everyone at a cost determined by ASME. The cost of obtaining this method is not a significant financial burden, making the method reasonably available.

Additionally, there were two VCS incorporated by reference into current subpart Cb and subpart Eb that the EPA is incorporating into new subparts VVVV and WWWW:

- The EPA is incorporating by reference section 4 of ASME PTC 4.1–1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda). This code provides instructions and

rules for conducting performance tests of fuel-fired steam generators. For context, this code is incorporated within the large municipal waste combustor standards as the method to calculate the steam or feed water flow rate of the combustor. This standard is available at the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016–5990.¹²⁷ The standard is available to everyone at a cost determined by ASME. The cost of obtaining this method is not a significant financial burden, making the method reasonably available.

- The EPA is incorporating by reference ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971) (Redesignated ASME PTC 19.5–2004, Flow Measurement). This document describes methods of flow measurement, including differential, pulsating, sonic and ultrasonic metering techniques, among others. For context, this code is incorporated within the large municipal waste combustor standards as recommended guidance on the design, construction, installation, calibration and use of nozzles and orifices for steam or feed water flowmeters. This standard is available at the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016–5990.¹²⁸ The standard is available to everyone at a cost determined by ASME. The cost of obtaining this method is not a significant financial burden, making the method reasonably available.

Additional information for the VCS search and determinations can be found in the memorandum, *Voluntary Consensus Standard Results for Large Municipal Waste Combustors NSPS and EG*, which is available in the docket for this action.

Under 40 CFR 60.8(b) and 60.13(i) of subpart A of the general provisions, a source may apply to the EPA to use alternative test methods or alternative monitoring requirements in place of any required testing methods, performance specifications, or procedures in the final rule or any amendments.

K. Congressional Review Act (CRA)

This action is subject to the CRA, and the EPA will submit a rule report to each House of Congress and to the Comptroller General of the United States. This action is a “major rule” as defined by 5 U.S.C. 804(2).

¹²⁴ See <https://www.astm.org>.

¹²⁵ See <https://www.astm.org>.

¹²⁶ <https://www.asme.org>.

¹²⁷ <https://www.asme.org>.

¹²⁸ See <https://www.asme.org>.

List of Subjects in 40 CFR Part 60

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

Lee Zeldin,
Administrator.

For the reasons stated in the preamble, the Environmental Protection Agency amends part 60 of title 40, chapter I, of the Code of Federal Regulations as follows:

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

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

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

Subpart A—General Provisions

- 2. Amend § 60.17 by:
 - a. Revising paragraphs (g)(1), (g)(13), and (14);
 - b. Adding paragraph (g)(18);
 - c. Redesignating paragraphs (h)(215) through (h)(239) as (h)(216) through (h)(240);
 - d. Adding paragraph (h)(215); and
 - e. Revising newly redesignated paragraph (h)(220).

The revisions and additions read as follows:

§ 60.17 Incorporations by reference.

* * * * *

(g) * * *

(1) ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971), IBR approved for §§ 60.58a(h), 60.58b(i), 60.1320(a), 60.1810(a), 60.5995(a), and 60.6550(a).

* * * * *

(13) ASME PTC 4.1–1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for §§ 60.46b, 60.58a(h), 60.58b(i), 60.1320(a), 60.1810(a), 60.5995(a), and 60.6550(a).

(14) ASME/ANSI PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], Issued August 31, 1981; IBR approved for §§ 60.56c(b); 60.63(f); 60.106(e); 60.104a(d), (h), (i), and (j); 60.105a(b), (d), (f), and (g); 60.106a(a); 60.107a(a), (c), and (d); 60.275(e); 60.275a(e); 60.275b(e); Tables 1 and 3 to subpart EEEE; Tables 2 and 4 to subpart FFFF; Table 2 to subpart JJJJ; §§ 60.285a(f); 60.396(a); 60.614a(b); 60.664a(b); 60.704(b); 60.704a(b); 60.2145(s) and (t);

60.2710(s) and (t); 60.2730(q); 60.4415(a); 60.4415a(b); 60.4900(b); 60.5220(b); Tables 1 and 2 to subpart LLLL; Tables 2 and 3 to subpart MMMM; §§ 60.5406(c); 60.5406a(c); 60.5406b(c); 60.5407a(g); 60.5407b(g); 60.5413(b); 60.5413a(b) and (d); 60.5413b(b) and (d); 60.5413c(b) and (d); 60.5930(a); Tables 3 and 4 to subpart VVVV; 60.6485(a); Tables 4 and 5 to subpart WWWW.

* * * * *

(18) ASME QRO–1–2005 (R2015), Standard for the Qualification and Certification of Resource Recovery Facility Operators; IBR approved for §§ 60.54b(a) and (b); 60.5865(a) and (c); 60.6420(a) and (c).

(h) * * *

(215) ASTM D6784–24, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), approved March 1, 2024; IBR approved for Table 4 to subpart VVVV; Table 5 to subpart WWWW.

* * * * *

(220) ASTM D7520–16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, approved April 1, 2016; IBR approved for §§ 60.123(c); 60.123a(c); 60.271(k); 60.272(a) and (b); 60.273(c) and (d); 60.274(i); 60.275(e); 60.276(c); 60.271a; 60.272a(a) and (b); 60.273a(c) and (d); 60.274a(h); 60.275a(e); 60.276a(f); 60.271b; 60.272b(a) and (b); 60.273b(c) and (d); 60.274b(h); 60.275b(e); 60.276b(f); 60.374a(d); 60.2972(a); Tables 1, 1a, and 1b to subpart EEEE; 60.3067(a); Tables 2 and 2a to subpart FFFF; 60.6145; Table 4 to subpart VVVV; 60.6685; and Table 5 to subpart WWWW.

* * * * *

Subpart Cb—Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994

■ 3. Amend § 60.32b by adding paragraph (o) to read as follows:

§ 60.32b Designated facilities.

* * * * *

(o) Municipal waste combustors subject to this subpart will remain subject to this subpart until the municipal waste combustor must comply with the requirements of an approved state plan or federal plan that implements subpart WWWW of this part (Emission Guidelines and Compliance Times for Large Municipal Waste Combustors Constructed on or Before January 23, 2024).

Subpart Eb—Standards of Performance for Large Municipal Waste Combustors for Which Construction Is Commenced After September 20, 1994 or for Which Modification or Reconstruction Is Commenced After June 19, 1996

■ 4. Amend § 60.50b by adding paragraph (q) to read as follows:

§ 60.50b Applicability and delegation of authority.

* * * * *

(q) Municipal waste combustors that commenced construction after September 20, 1994 but no later than January 23, 2024 or that commenced reconstruction or modification after June 19, 1996, but no later than September 10, 2026, remain subject to this subpart until the municipal waste combustor must comply with the requirements of an approved state plan or federal plan that implements subpart WWWW of this part (Emission Guidelines and Compliance Times for Large Municipal Waste Combustors Constructed on or Before January 23, 2024).

■ 5. Amend § 60.54b by revising paragraphs (a) and (b) to read as follows:

§ 60.54b Standards for municipal waste combustor operator training and certification.

(a) No later than the date 6 months after the date of startup of an affected facility or on December 19, 1996, whichever is later, each chief facility operator and shift supervisor shall obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers [QRO–1–2005 (incorporated by reference, see § 60.17)] or a state certification program.

(b) No later than the date 6 months after the date of startup of an affected facility or on December 19, 1996, whichever is later, each chief facility operator and shift supervisor shall have completed full certification or shall have scheduled a full certification exam with either the American Society of Mechanical Engineers [QRO–1–2005 (incorporated by reference, see § 60.17)] or a state certification program.

* * * * *

■ 6. Add subpart VVVV consisting of §§ 60.5680 to 60.6145 to read as follows:

Subpart VVVV—Standards of Performance for Large Municipal Waste Combustors

Sec.

Introduction

60.5680 What does this subpart do?

60.5685 When does this subpart become effective?

Applicability

- 60.5690 Does this subpart apply to my municipal waste combustor?
- 60.5695 What is a new municipal waste combustor?
- 60.5700 Does this subpart allow any exemptions?
- 60.5705 Do other new source performance standards also apply to my municipal waste combustor?
- 60.5710 What authorities to enforce these federal new source performance standards can the Administrator delegate to a state agency?
- 60.5715 How are these new source performance standards structured?
- 60.5720 Do all five components of these new source performance standards apply at the same time?
- 60.5725 Are there different subcategories of municipal waste combustors within this subpart?

Preconstruction Requirements: Materials Separation Plan

- 60.5730 Who must submit a materials separation plan?
- 60.5735 What is a materials separation plan?
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Introduction

§ 60.5680 What does this subpart do?

This subpart establishes new source performance standards for municipal waste combustors with a combustion capacity greater than 250 tons per day of municipal solid waste.

§ 60.5685 When does this subpart become effective?

This subpart takes effect May 11, 2026. Some of the requirements in this subpart apply to municipal waste combustor planning and must be completed before construction is commenced on the municipal waste combustor. In particular, the preconstruction requirements in §§ 60.5730 through 60.5830 must be completed prior to commencing construction. Other requirements (such as the emission limits) apply when the municipal waste combustor begins operation.

Applicability

§ 60.5690 Does this subpart apply to my municipal waste combustor?

Yes, if your municipal waste combustor meets both of the following criteria:

(a) Your municipal waste combustor is a new municipal waste combustor.

(b) Your municipal waste combustor has the capacity to combust greater than 250 tons per day of municipal solid waste.

§ 60.5695 What is a new municipal waste combustor?

(a) A new municipal waste combustor meets either of two criteria:

(1) Commenced construction after January 23, 2024.

(2) Commenced reconstruction or modification after September 10, 2026.

(b) This subpart does not apply to your municipal waste combustor if you make physical or operational changes to an existing municipal waste combustor primarily to comply with the emission guidelines in subpart WWW of this part. Such changes do not qualify as reconstruction or modification under this subpart.

§ 60.5700 Does this subpart allow any exemptions?

(a) *Municipal waste combustors that combust less than 11 tons per day.* You are exempt from this subpart if you meet each of the following four requirements:

(1) Your municipal waste combustor that is capable of combusting more than 250 tons per day of municipal solid waste is subject to a federally enforceable permit limiting the maximum amount of municipal solid waste that may be combusted in the unit to less than or equal to 11 tons per day.

(2) You notify the Administrator that the unit qualifies for this exemption. Beginning September 10, 2026, you must submit the notification and copy of the federally enforceable permit required by (a)(2) and (3) of this section as a portable document format (PDF) file electronically according to § 60.6065(d).

(3) You provide the Administrator with a copy of the federally enforceable permit that limits the firing of municipal solid waste to less than 11 tons per day. Beginning September 10, 2026, you must submit the notification and copy of the federally enforceable permit required by (a)(2) and (3) of this section as a portable document format (PDF) file electronically according to § 60.6065(d).

(4) You keep daily records of the amount of municipal solid waste combusted.

(b) *Small power production facilities.* You are exempt from this subpart if you meet each of the following four requirements:

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

(2) Your unit combusts homogeneous waste (such as automotive tires or used oil, but excluding refuse-derived fuel) to produce electricity.

(3) You notify the Administrator that the unit qualifies for this exemption. Beginning September 10, 2026, you

must submit this notification as a PDF file electronically according to § 60.6065(d).

(4) You provide the Administrator with data documenting that the unit qualifies for this exemption.

(c) *Cogeneration facilities.* You are exempt from this subpart if you meet each of the following four requirements:

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

(2) Your unit combusts homogeneous waste (such as automotive tires or used oil but excluding refuse-derived fuel) to produce electricity and steam or other forms of useful energy (such as heat) used for industrial, commercial, heating, or cooling purposes.

(3) You notify the Administrator that the unit qualifies for this exemption.

Beginning September 10, 2026, you must submit this notification as a PDF file electronically according to § 60.6065(d).

(4) You provide the Administrator with documentation that the unit qualifies for this exemption.

(d) *Municipal waste combustors that combust only tires.* You are exempt from this subpart if you meet each of the following three requirements:

(1) Your municipal waste combustor combusts a single-item waste stream of tires.

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

(3) You provide the Administrator with data documenting that the unit qualifies for this exemption. Beginning September 10, 2026, you must submit the notification and data required under (d)(2) and (3) of this section as a PDF file electronically according to § 60.6065(d).

(e) *Hazardous waste combustion units.* You are exempt from this subpart if you get a permit for your unit under section 3005 of the Solid Waste Disposal Act.

(f) *Materials recovery units.* You are exempt from this subpart if your unit combusts waste primarily to recover metals. Primary and secondary smelters qualify for the exemption.

(g) *Co-fired combustors.* You are exempt from this subpart if you meet each of the following four requirements:

(1) Your municipal waste combustor is a co-fired combustor as defined under § 60.6145.

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

(3) You provide the Administrator with a copy of the federally enforceable permit (specified in the definition of cofired combustor in § 60.6145). Beginning September 10, 2026, you submit the notification and copy of the

federally enforceable permit required under (g)(2) and (3) of this section as a PDF file electronically according to § 60.6065(d).

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

(h) *Plastics/rubber recycling units.* You are exempt from this subpart if you meet each of the following five requirements:

(1) Your pyrolysis/combustion unit is an integrated part of a plastics/rubber recycling unit as defined under “Definitions” (§ 60.6145).

(2) You notify the Administrator that the unit qualifies for this exemption. Beginning September 10, 2026, you must submit this notification as a PDF file electronically according to § 60.6065(d).

(3) You keep and maintain records of the weights, each calendar quarter, of plastics, rubber, and rubber tires processed.

(4) You keep and maintain records of the weights, each calendar quarter, of chemical plant feed stocks and petroleum refinery feedstocks produced and marketed.

(5) You keep and maintain records of the name and address of the purchaser of those feed stocks.

(i) *Units that combust fuels made from products of plastics/rubber recycling plants.* You are exempt from this subpart if you meet two requirements:

(1) Your unit combusts gasoline, diesel fuel, jet fuel, fuel oils, residual oil, refinery gas, petroleum coke, liquified petroleum gas, propane, or butane produced by chemical plants or petroleum refineries that use feedstocks produced by plastics/rubber recycling units.

(2) Your unit does not combust any other municipal solid waste.

(j) *Cement kilns.* You are exempt from this subpart if your cement kiln combusts municipal solid waste.

(k) *Air curtain incinerators.* If your air curtain incinerator (see § 60.6145 for definition) combusts 100 percent wood waste, 100 percent clean lumber, 100 percent yard waste, or a 100 percent mixture of only wood waste, clean lumber, and/or yard waste, you must meet only the requirements under “Air Curtain Incinerators That Burn 100 Percent Wood Waste, Clean Lumber, and Yard Waste” (§§ 60.6115 through 60.6135). If your air curtain incinerator combusts municipal solid waste other than 100 percent wood waste, 100 percent clean lumber, 100 percent yard waste, or a 100 percent mixture of only wood waste, clean lumber, and/or yard

waste, you are subject to all provisions of this subpart.

§ 60.5705 Do other new source performance standards also apply to my municipal waste combustor?

If this subpart VVVV applies to your municipal waste combustor, then subparts Db, E, Ea, or Eb of this part do not apply to your municipal waste combustor.

§ 60.5710 What authorities to enforce these federal new source performance standards can the Administrator delegate to a state agency?

(a) The U.S. EPA Administrator retains the following authorities which are not transferred to a state:

(1) Approval of exemption claims in § 60.5700(a), (b), (c), (d), (g), and (h).

(2) Enforceability under federal law of the federally enforceable (as defined in § 60.6145) permits specified in § 60.5700(a) and (g).

(3) Determination of compliance with the siting requirements as specified in § 60.5790.

(4) Acceptance of relationship between carbon dioxide and oxygen as part of initial and annual performance tests as specified in §§ 60.6080(g) and 60.6090(k).

(5) Approval of other monitoring systems used to obtain emissions data when data is not obtained by CEMS as specified in §§ 60.5955 and 60.5985(g)(11).

(6) Approval of a site-specific monitoring plan for the continuous emission monitoring system specified in § 60.5985(c) and (d) or the continuous automated sampling system specified in § 60.5985(g)(10) and (h) of this section.

(7) Approval of major alternatives to test methods.

(8) Approval of major alternatives to monitoring.

(9) Waiver of recordkeeping.

(10) Performance test and data reduction waivers under § 60.8(b).

(11) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

(b) The Administrator can delegate all other authorities in all other sections of this subpart to the state for direct state enforcement.

§ 60.5715 How are these new source performance standards structured?

These new source performance standards contain five major components:

(a) *Preconstruction requirements.*

(1) Materials separation plan.

(2) Siting analysis.

(b) *Good combustion practices.*

(1) Operator training.

(2) Operator certification.

(3) Operating requirements.

(c) *Emission limits.*

(d) *Monitoring and stack testing.*

(e) *Recordkeeping and reporting.*

§ 60.5720 Do all five components of these new source performance standards apply at the same time?

No, you must meet the preconstruction requirements before you commence construction of the municipal waste combustor. After the municipal waste combustor begins operation, you must meet all of the good combustion practices, emission limits, monitoring, stack testing, and most recordkeeping and reporting requirements.

§ 60.5725 Are there different subcategories of municipal waste combustors within this subpart?

The requirements for new municipal waste combustors of all types are identical except that carbon monoxide emissions limits are set separately for mass burn, modular, and refuse-derived fuel combustor types (see Table 1 to Subpart VVVV).

Preconstruction Requirements: Materials Separation Plan

§ 60.5730 Who must submit a materials separation plan?

(a) You must prepare a materials separation plan for your municipal waste combustor if you commence construction of a new large municipal waste combustor after January 23, 2024.

(b) You must prepare a materials separation plan if you are required to submit an initial application for a construction permit, under 40 CFR part 51, subpart I, or part 52, as applicable, for the reconstruction or modification of your municipal waste combustor.

§ 60.5735 What is a materials separation plan?

The plan identifies a goal and an approach for separating certain components of municipal solid waste for a given service area prior to waste combustion and making them available for recycling.

§ 60.5740 What steps must I complete for my materials separation plan?

(a) For your materials separation plan, you must complete all of the following nine steps:

(1) Prepare a draft materials separation plan.

(2) Make your draft plan available to the public.

(3) Hold a public meeting on your draft plan.

(4) Prepare responses to public comments received during the public comment period on your draft plan.

(5) Prepare a revised materials separation plan.

(6) Discuss the revised plan at the public meeting for review of the siting analysis.

(7) Prepare responses to public comments received on your revised plan.

(8) Prepare a final materials separation plan.

(9) Submit the final materials separation plan.

(b) You may use analyses conducted under the requirements of 40 CFR part 51, subpart I, or part 52, to comply with some of the materials separation requirements of this subpart.

§ 60.5745 What must I include in my draft materials separation plan?

(a) You must prepare and submit a draft materials separation plan for your municipal waste combustor and its service area.

(b) Your draft materials separation plan must identify a goal and an approach for separating certain components of municipal solid waste for a given service area prior to waste combustion and making them available for recycling. A materials separation plan may include such elements as drop off facilities, buy-back or deposit-return incentives, programs for curbside pickup, and centralized systems for mechanical separation.

(c) Your materials separation plan may include different goals or approaches for different subareas in the service area.

(d) Your materials separation plan may exclude materials separation activities for certain subareas or, if warranted, the entire service area.

§ 60.5750 How do I make my draft materials separation plan available to the public?

(a) Distribute your draft materials separation plan to the principal public libraries in the area where you will construct the municipal waste combustor.

(b) Publish a notice of a public meeting in the principal newspapers that serve two areas:

(1) The area where you will construct the municipal waste combustor.

(2) The areas where the waste that your municipal waste combustor combusts will be collected.

(c) Include six items in your notice of the public meeting:

- (1) The date of the public meeting.
- (2) The time of the public meeting.
- (3) The location of the public meeting.
- (4) The location of the public libraries where the public can find your materials separation plan. Include the normal business hours of each library.

(5) An agenda of the topics that will be discussed at the public meeting.

(6) The beginning and ending dates of the public comment period on your draft materials separation plan.

§ 60.5755 When must I accept comments on the materials separation plan?

(a) You must accept verbal comments at the public meeting.

(b) You must accept written comments any time during the period that begins on the date the document is distributed to the principal public libraries and ends 30 days after the date of the public meeting.

§ 60.5760 Where and when must I hold a public meeting on my draft materials separation plan?

(a) You must hold a public meeting and accept comments on your draft materials separation plan.

(b) You must hold the public meeting in the county where you will construct the municipal waste combustor.

(c) You must schedule the public meeting to occur 30 days or more after you make your draft materials separation plan available to the public.

(d) You may combine the public meeting with any other public meeting required as part of any other federal, state, or local permit review. However, you may not combine it with the public meeting required for the siting analysis under “Preconstruction Requirements: Siting Analysis” (§ 60.5820).

(e) You are encouraged to address eight topics at the public meeting for your draft materials separation plan:

- (1) Expected size of the service area for your municipal waste combustor.
- (2) Amount of waste generation (waste collection) anticipated in the service area.
- (3) Types and estimated amounts of materials proposed for separation.

(4) Methods proposed for materials separation.

(5) Amount of residual waste for disposal.

(6) Alternate disposal methods for handling the residual waste.

(7) Where your responses to public comments on the draft materials separation plan will be available for inspection.

(8) Where your revised materials separation plan will be available for inspection.

(f) You must prepare a transcript of the public meeting on your draft materials separation plan.

§ 60.5765 What must I do with any public comments I receive during the public comment period on my draft materials separation plan?

You must do all of the following three steps:

(a) Prepare written responses to any public comments you received during the public comment period. Summarize the responses to public comments in a document that is separate from your revised materials separation plan.

(b) Make the comment response document available to the public (including distribution of the document at least to the principal public libraries used to announce the public meeting) in the service area where you will construct your municipal waste combustor.

(c) Prepare a revised materials separation plan for the municipal waste combustor that includes, as appropriate, changes made in response to any public comments you received during the public comment period.

§ 60.5770 What must I do with my revised materials separation plan?

You must do the following two tasks:

(a) As specified under “Reporting” (§ 60.6055), submit copies of all of the following five items to the Administrator on or before the date you submit the application for a construction permit under 40 CFR part 51, subpart I, or 40 CFR part 52. (If you are not required to submit an application for a construction permit under 40 CFR part 51, subpart I, or 40 CFR part 52, submit copies of the five items to the Administrator by the date of your notice of construction under § 60.6060):

(1) Your draft materials separation plan.

(2) Your revised materials separation plan.

(3) Your notice of the public meeting for your draft materials separation plan.

(4) A transcript of the public meeting on your draft materials separation plan.

(5) The document that summarizes your responses to the public comments you received during the public comment period on your draft materials separation plan.

(b) Make your revised materials separation plan available to the public as part of the distribution of the siting analysis procedures under “Preconstruction Requirements: Siting Analysis” (§ 60.5810).

§ 60.5775 What must I include in the public meeting on my revised materials separation plan and siting analysis?

As part of the public meeting for review of the siting analysis, as specified under “Preconstruction Requirements: Siting Analysis” (§ 60.5820), you must discuss the two following areas:

(a) How the revised materials separation plan has changed from your

draft materials separation plan discussed at the first public meeting (§ 60.5760).

(b) Questions about your revised materials separation plan.

§ 60.5780 What must I do with any public comments I receive on my revised materials separation plan?

(a) If you receive any comments on the revised materials separation plan, you must prepare written responses to any public comments and include them in the document that summarizes your responses to public comments on the siting analysis.

(b) Prepare a final materials separation plan that includes, as appropriate, changes made in response to any public comments you received on your revised materials separation plan.

§ 60.5785 How do I submit my final materials separation plan?

As specified under “Reporting” (§ 60.6060), submit your final materials separation plan to the Administrator as part of the initial notice of construction for the municipal waste combustor.

Preconstruction Requirements: Siting Analysis

§ 60.5790 Who must submit a siting analysis?

(a) You must prepare a siting analysis if you commence construction of a large municipal waste combustor after January 23, 2024.

(b) 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 municipal waste combustor.

§ 60.5795 What is a siting analysis?

The siting analysis addresses how your municipal waste combustor affects ambient air quality, visibility, soils, vegetation, and other relevant factors. The analysis shall consider air pollution control alternatives that minimize, on a site-specific basis, to the maximum extent practicable, potential risks to the public health or the environment.

§ 60.5800 What steps must I complete for my siting analysis?

(a) For your siting analysis, you must complete all of the following five steps:

- (1) Prepare an analysis.
- (2) Make your analysis available to the public.
- (3) Hold a public meeting on your analysis.
- (4) Prepare responses to public comments received on your analysis.
- (5) Submit your analysis.

(b) If you commence construction after January 23, 2024, you must prepare a siting analysis according to the requirements of 40 CFR part 51, subpart I, or 40 CFR part 52, as applicable, and must submit the siting analysis as part of the initial notification of construction. You may use analyses conducted under the requirements of 40 CFR part 51, subpart I, or part 52 to comply with some of the siting analysis requirements of this subpart.

§ 60.5805 What must I include in my siting analysis?

(a) Include an analysis of how your municipal waste combustor affects the following four areas:

- (1) Ambient air quality.
- (2) Visibility.
- (3) Soils.
- (4) Vegetation.

(b) Include an analysis of air pollution control alternatives that minimize, on a site-specific basis, the potential risks to the public health and the environment to the maximum extent practicable.

§ 60.5810 How do I make my siting analysis available to the public?

(a) Distribute your siting analysis and revised materials separation plan to the principal public libraries in the area where you will construct your municipal waste combustor.

(b) Publish a notice of a public meeting in the principal newspapers that serve the following two areas:

- (1) The area where you will construct your municipal waste combustor.
 - (2) The areas where the waste that your municipal waste combustor combusts will be collected.
- (c) Include six items in your notice of the public meeting:
- (1) The date of the public meeting.
 - (2) The time of the public meeting.
 - (3) The location of the public meeting.
 - (4) The location of the public libraries where the public can find your siting analysis and revised materials separation plan. Include the normal business hours of each library.

(5) An agenda of the topics that will be discussed at the public meeting.

(6) The beginning and ending dates of the public comment period on your siting analysis and revised materials separation plan.

§ 60.5815 When must I accept comments on the siting analysis and revised materials separation plan?

(a) You must accept verbal comments at the public meeting.

(b) You must accept written comments anytime during the period that begins on the date the document is distributed to the principal public libraries and ends 30 days after the date of the public meeting.

§ 60.5820 Where and when must I hold a public meeting on the siting analysis?

(a) You must hold a public meeting to discuss and accept comments on your siting analysis and your revised materials separation plan.

(b) You must hold the public meeting in the county where you will construct your municipal waste combustor.

(c) You must schedule the public meeting to occur 30 days or more after you make your siting analysis and revised materials separation plan available to the public.

(d) You must prepare a transcript of the public meeting on your siting analysis.

§ 60.5825 What must I do with any public comments I receive during the public comment period on my siting analysis?

If you receive any comments on the siting analysis, you must do the following three things:

(a) Prepare written responses to any public comments on your siting analysis and the revised materials separation plan you received during the public comment period. Summarize the responses to public comments in a document that is separate from your materials separation plan and siting analysis.

(b) Make the document summarizing responses to public comments available to the public in the service area where you will construct your municipal waste combustor. You must distribute the document to all public libraries in the service area where the affected facility is to be located, including the public libraries used to announce the meeting.

(c) Prepare a final siting analysis for the municipal waste combustor that includes, as appropriate, changes made in response to any public comments you received during the public comment period.

§ 60.5830 How do I submit my siting analysis?

As specified under “Reporting” (§ 60.6060), submit all four of the following items as part of the notice of construction:

- (a) Your final siting analysis.
- (b) Your notice of the public meeting on your siting analysis.
- (c) A transcript of the public meeting on your siting analysis.
- (d) The document that summarizes your responses to the public comments you received during the public comment period.

Good Combustion Practices: Operator Training**§ 60.5835 What types of training must I do?**

There are two types of required training:

- (a) Training of operators of municipal waste combustors using the U.S. Environmental Protection Agency (EPA) or a state-approved training course.
- (b) Training of plant personnel using a site-specific training course.

§ 60.5840 Who must complete the operator training course? By when?

(a) Three types of employees must complete the EPA or state-approved operator training course:

- (1) Chief facility operators.
- (2) Shift supervisors.
- (3) Control room operators.

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

- (1) Six months after your municipal waste combustor initial startup.
- (2) September 10, 2026.
- (3) The date before an employee assumes responsibilities that affect operation of the municipal waste combustor.

§ 60.5845 Who must complete the site-specific training course?

All employees with responsibilities that affect how a municipal waste combustor operates must complete the site-specific training course, this includes at least six types of employees:

- (a) Chief facility operators.
- (b) Shift supervisors.
- (c) Control room operators.
- (d) Ash handlers.
- (e) Maintenance personnel.
- (f) Crane or load handlers.

§ 60.5850 What site-specific training must I provide?

For site-specific training, you must do all of the following four things:

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

- (1) Six months after your municipal waste combustor initial startup.
- (2) September 10, 2026.
- (b) Establish a training program to review the site-specific operating manual with people whose responsibilities affect the operation of your municipal waste combustor. Complete the initial review by the later of three dates:

- (1) Six months after your municipal waste combustor initial startup.
- (2) September 10, 2026.
- (3) The date prior to the date an employee assumes responsibilities that affect operation of the municipal waste combustor.

(c) Update your manual annually.

(d) Following the initial review, review your operating manual with staff annually.

§ 60.5855 What information must I include in the site-specific operating manual?

You must include all of the following 11 items in the operating manual for your facility:

- (a) A summary of all applicable standards in this subpart.
- (b) A description of the basic combustion theory that applies to a municipal waste combustor.
- (c) Procedures for receiving, handling, and feeding municipal solid waste.
- (d) Procedures to be followed during periods of startup, shutdown, and malfunction of the municipal waste combustor.
- (e) Procedures for maintaining a proper level of combustion air supply.
- (f) Procedures for operating the municipal waste combustor in compliance with the standards contained in this subpart.
- (g) Procedures for responding to periodic upset or off-specification conditions.
- (h) Procedures for minimizing carryover of particulate matter.
- (i) Procedures for handling ash.
- (j) Procedures for monitoring emissions from the municipal waste combustor.
- (k) Procedures for recordkeeping and reporting.

§ 60.5860 Where must I keep the site-specific operating manual?

You must keep your operating manual in a readily accessible location at your facility. It must be available for review or inspection for all persons required to undergo training as specified in § 60.5850. The operating manual and records of training as specified in § 60.6035 shall be available for inspection by the EPA or its delegated enforcement agency upon request.

Good Combustion Practices: Operator Certification**§ 60.5865 What types of operator certification must the chief facility operator and shift supervisor obtain and by when must they obtain it?**

(a) Each chief facility operator and shift supervisor must obtain and keep a current provisional operator certification from the American Society of Mechanical Engineers (QRO-1-2005) (incorporated by reference, see § 60.17) or a current provisional operator certification from your state certification program, by the later of three dates:

- (1) Six months after the municipal waste combustor initial startup.

(2) September 10, 2026.

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

(b) Each chief facility operator and shift supervisor must obtain and maintain a current provisional certification, and must complete the full certification or be scheduled to take the full certification exam, by the later of three dates:

(1) Six months after the municipal waste combustor initial startup.

(2) September 10, 2026.

(3) For a provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position, a full certification exam must be completed within 6 months after they transfer to the municipal waste combustor or 6 months after they are hired to work at the municipal waste combustor.

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

- (1) Obtain and maintain a current provisional operator certification from the American Society of Mechanical Engineers or a state certification program in your state.
- (2) Schedule a full certification exam with the American Society of Mechanical Engineers (QRO-1-2005) (incorporated by reference, see § 60.17).
- (3) Schedule a full certification exam with your state certification program.

§ 60.5870 After the required date for operator certification, who may operate the municipal waste combustor?

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

- (a) A fully certified chief facility operator.
- (b) A fully certified shift supervisor.
- (c) A provisionally certified chief facility operator or a provisionally certified shift supervisor who is scheduled to take the full certification exam specified in § 60.5865.

§ 60.5875 What if all the certified operators must be temporarily offsite?

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

(a) When the certified chief facility operator and certified shift supervisor are both offsite for 12 hours or less, and no other certified operator is onsite, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor.

(b) When the certified chief facility operator and certified shift supervisor are offsite for more than 12 hours, but for 2 weeks or less, and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the Administrator. However, you must record the period when the certified chief facility operator and certified shift supervisor are offsite and include that information in the annual report as specified under § 60.6090(l).

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

(1) Notify the Administrator in writing. In the notice, state what caused the absence and what you are doing to ensure that a certified chief facility operator or certified shift supervisor is onsite as expeditiously as practicable. Beginning September 10, 2026, submit this notification as a PDF file electronically according to § 60.6065(d).

(2) Submit a status report and corrective action summary to the Administrator every 4 weeks following the initial notification. If the Administrator notifies you that your status report or corrective action summary is disapproved, the municipal waste combustor may continue operation for 90 days, but then must cease operation. If corrective actions are taken in the 90-day period such that the Administrator withdraws the disapproval, municipal waste combustor operation may continue. Beginning September 10, 2026, submit this status report as a PDF file electronically according to § 60.6065(d).

(d) A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustor may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Administrator for up to 6 months before taking the ASME QRO certification exam as specified in § 60.5865.

Good Combustion Practices: Operating Requirements

§ 60.5880 What are the operating practice requirements for my municipal waste combustor?

(a) You must meet the carbon monoxide emission limits specified in Table 1 to Subpart VVVV within 60 days of your municipal waste combustor reaching the maximum load level at which it will operate, but no later than 180 days after its initial startup.

(b) You must not operate your municipal waste combustor at loads greater than 110 percent of the maximum demonstrated load of the municipal waste combustor (4-hour block average), as specified under “Definitions” (§ 60.6145) except as specified in paragraphs (b)(1) and (2) of this section. The averaging time is specified under § 60.5995.

(1) During the annual dioxins/furans or mercury performance test and the 2 weeks preceding the annual dioxins/furans or mercury performance test, the municipal waste combustor load limit is not applicable if the provisions of paragraph (b)(2) of this section are met.

(2) The Administrator may waive in writing the municipal waste combustor load limit for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The municipal waste combustor load limit continues to apply, and remains enforceable, until and unless the Administrator grants the waiver.

(c) You must not operate your municipal waste combustor so that the temperature measured at the inlet of the particulate matter control device exceeds 17 °C above the maximum demonstrated temperature of the particulate matter control device (4-hour block average), as specified under “Definitions” (§ 60.6145) except as specified in paragraphs (c)(1) and (2) of this section. The averaging time is specified under § 60.6000. The requirements specified in this paragraph apply to each particulate matter control device used.

(1) During the annual dioxins/furans or mercury performance test and the 2 weeks preceding the annual dioxins/furans or mercury performance test, the particulate matter control device temperature limitations are not applicable if the provisions of paragraph (c)(2) of this section are met.

(2) The Administrator may waive in writing the particulate matter control device temperature limits for the

purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The temperature limits continue to apply, and remain enforceable, until and unless the Administrator grants the waiver.

(d) If your municipal waste combustor uses activated carbon to control dioxins/furans or mercury emissions, you must meet the requirements for activated carbon injection rate during dioxins/furans or mercury testing as specified in § 60.6005.

§ 60.5885 What happens to the operating requirements during periods of startup, shutdown, and malfunction?

The operating requirements under this subpart apply at all times including periods of municipal waste combustor warmup, startup, shutdown, and malfunction. Monitoring data cannot be dismissed or excluded from compliance calculations during periods of startup, shutdown, or malfunction, but must be recorded and reported in accordance with the provisions of § 60.6045(e). The provisions applicable to periods of startup, shutdown, and malfunction of § 60.8(c) of subpart A of this part do not apply.

Emission Limits

§ 60.5890 What pollutants are regulated by this subpart?

Eleven pollutants, in four groupings, are regulated:

(a) Organics. Dioxins/furans.

(b) Metals.

(1) Cadmium.

(2) Lead.

(3) Mercury.

(4) Opacity.

(5) Particulate matter.

(c) Acid gases.

(1) Hydrogen chloride.

(2) Nitrogen oxides.

(3) Sulfur dioxide.

(d) Other.

(1) Carbon monoxide.

(2) Fugitive ash.

§ 60.5895 What emission limits must I meet? By when?

(a) You must meet the emission limits specified in Table 1 and Table 2 to Subpart VVVV. You must meet the limits 60 days after your municipal waste combustor reaches the maximum load level but no later than 180 days after its initial startup.

(b) The visible emissions of combustion ash discharged to the atmosphere from an ash conveying

system (including conveyor transfer points) must not exceed 5 percent of the observation period (*i.e.*, 9 minutes per 3-hour period), as determined by EPA Reference Method 22 observations as specified in § 60.5975(a). You must meet the limits 60 days after your municipal waste combustor reaches the maximum load level but no later than 180 days after its initial startup. This visible emission limit does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the visible emission limit does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems. This visible emissions limit does not apply to visible emissions that occur during repair and maintenance of the combustion ash conveying systems while the municipal waste combustor is not operating.

§ 60.5900 What happens to the emission limits during periods of startup, shutdown, and malfunction?

(a) The emission limits of this subpart apply at all times including periods of warmup, startup, shutdown, and malfunction. The provisions applicable to periods of startup, shutdown, and malfunction of § 60.11(c) of subpart A of this part do not apply.

Continuous Emission Monitoring

§ 60.5905 What types of continuous emission monitoring must I perform?

To continuously monitor emissions, you must perform all of the following four tasks:

- (a) Install continuous emission monitoring systems for certain gaseous pollutants.
- (b) Make sure your continuous emission monitoring systems are operating correctly.
- (c) Make sure you obtain the minimum amount of monitoring data.
- (d) Install a continuous opacity monitoring system for measuring opacity.

§ 60.5910 What continuous emission monitoring systems must I install for gaseous pollutants?

(a) You must install, calibrate, maintain, and operate continuous emission monitoring systems for oxygen (or carbon dioxide), sulfur dioxide, carbon monoxide, and nitrogen oxides to demonstrate compliance with the emission limits specified in Tables 1 and 2 to Subpart VVVV. Install the continuous emission monitoring systems for sulfur dioxide, nitrogen oxides, carbon monoxide, and oxygen (or carbon dioxide) at the outlet of the air pollution control device.

(b) If you elect to continuously monitor emissions for particulate matter, cadmium, lead, mercury, or hydrogen chloride in lieu of performance testing, you must install, calibrate, maintain, and operate continuous emissions monitoring systems for monitoring the particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions discharged to the atmosphere and continuous emissions monitoring systems for oxygen (or carbon dioxide) at the outlet of the air pollution control device.

(c) You must install, evaluate, and operate each continuous emission monitoring system according to the "Monitoring Requirements" in § 60.13.

(d) You must monitor the oxygen (or carbon dioxide) concentration at each location where you monitor carbon monoxide, sulfur dioxide, and nitrogen oxides. If you elect to continuously monitor emissions for particulate matter, cadmium, lead, mercury, or hydrogen chloride, you must monitor the oxygen (or carbon dioxide) concentration at each location where you monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride.

(e) You may choose to monitor carbon dioxide instead of oxygen as a diluent gas. If you choose to monitor carbon dioxide, then an oxygen monitor is not required, and you must follow the requirements in § 60.5930.

§ 60.5915 How are the data from the continuous emission monitoring systems used?

(a) You must use data from the continuous emission monitoring systems for sulfur dioxide, nitrogen oxides, and carbon monoxide to demonstrate continuous compliance with the emission limits specified in Tables 1 and 2 to Subpart VVVV. To demonstrate compliance for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash, see § 60.5965.

(b) You may elect to continuously monitor emissions for particulate matter, cadmium, lead, mercury, or hydrogen chloride to demonstrate continuous compliance with the emission limits specified in Table 2 to Subpart VVVV.

(c) For pollutants that you continuously monitor as described in paragraphs (a) and (b) of this section, you may request that compliance with the emission limits 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 shall be established as specified in § 60.5930.

(d) For pollutants that you continuously monitor as described in paragraphs (a) and (b) of this section, demonstrate compliance with the emission limits in Tables 1 and 2 to Subpart VVVV by using the continuous emission monitoring system specified in § 60.5910 to collect the minimum amount of monitoring data specified in § 60.5935 and calculating the average emission concentration as specified in § 60.5940 and Table 4 to Subpart VVVV, as applicable.

§ 60.5920 How do I make sure my continuous emission monitoring systems are operating correctly?

(a) Conduct initial, daily, quarterly, and annual evaluations of your continuous emission monitoring systems that measure oxygen (or carbon dioxide), sulfur dioxide, nitrogen oxides, and carbon monoxide and your continuous emission monitoring systems for any pollutants (particulate matter, cadmium, lead, mercury, or hydrogen chloride) for which you elect to continuously monitor emissions, as appropriate.

(b) Complete your initial evaluation of the continuous emission monitoring systems within 60 days after your municipal waste combustor reaches the maximum load level at which it will operate, but no later than 180 days after the initial startup of your municipal waste combustor, as specified under § 60.8 of subpart A of this part, or, for pollutants for which you elect to continuously monitor emissions and for which you previously determined compliance by conducting a performance test, within 180 days of notification of the Administrator of use of the continuous monitoring system, whichever is later.

(c) For initial and annual evaluations, you must collect data concurrently (or within 30 to 60 minutes) from: your oxygen (or carbon dioxide) continuous emission monitoring system; your sulfur dioxide, nitrogen oxides, and carbon monoxide continuous emission monitoring systems, as appropriate; your continuous emission monitoring systems for any pollutants (particulate matter, cadmium, lead, mercury, or hydrogen chloride) for which you elect to continuously monitor emissions, as appropriate; and the appropriate test methods specified in Tables 3 and 4 to Subpart VVVV. Collect the data during each initial and annual evaluation of your continuous emission monitoring systems following the applicable performance specifications in Table 3 to Subpart VVVV

(d) For continuous emission monitoring systems that measure oxygen (or carbon dioxide), sulfur dioxide, nitrogen oxides, and carbon monoxide, follow the quality assurance procedures in Procedure 1 of appendix F of this part for each continuous emission monitoring system. The procedures include annual relative accuracy test audit, daily calibration drift, and quarterly accuracy determinations. For continuous emission monitoring systems for any pollutants (particulate matter, cadmium, lead, mercury, or hydrogen chloride) for which you elect to continuously monitor emissions, as appropriate, follow the quality assurance procedures of the applicable procedures of appendix F as specified in Table 3 to Subpart VVVV or the site-specific monitoring plan.

§ 60.5925 What is my schedule for evaluating continuous emission monitoring systems?

(a) Conduct annual relative accuracy test audits of your continuous emission monitoring systems no less than 9 calendar months and no more than 15 calendar months following the previous performance test; you must complete five relative accuracy test audits in each 5-year calendar period.

(b) Evaluate your continuous emission monitoring systems daily and quarterly as specified in procedure 1 in appendix F of this part.

§ 60.5930 What must I do if I choose to monitor carbon dioxide instead of oxygen as a diluent gas?

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

(a) Use EPA Reference Method 3, 3A or 3B in appendix A of this part, or as an alternative the manual method portion of ASME PTC-19-10-1981—part 10 (incorporated by reference, see § 60.17), as applicable, to determine oxygen concentration at the location of your carbon dioxide monitor.

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

(c) Use the fuel-factor equation in EPA Reference Method 3B in appendix A of this part to determine the relationship between oxygen and carbon dioxide.

§ 60.5935 What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems?

(a) Where continuous emission monitoring systems are required, obtain 1-hour arithmetic averages. Make sure the averages for sulfur dioxide, nitrogen oxides, and carbon monoxide, and, if you elect to continuously monitor emissions, the averages for particulate matter, cadmium, lead, mercury, or hydrogen chloride, are in the units specified in Tables 1 and 2 to Subpart VVVV at 7 percent oxygen (or the equivalent carbon dioxide level). Use the 1-hour averages of oxygen (or carbon dioxide) data from your continuous emission monitoring system to determine the actual oxygen (or carbon dioxide) level and to calculate emissions at 7 percent oxygen (or the equivalent carbon dioxide level). The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2) of subpart A of this part. Do not correct CEMS data during warmup, startup, and shutdown, as defined in this subpart, to 7 percent oxygen. CEMS data during warmup, startup, and shutdown are used as measured.

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

(c) Valid continuous monitoring system hourly averages shall be obtained for all times the affected facility is operated except as specified in § 60.13(e).

(d) If you do not obtain the minimum data required in paragraphs (a) through (c) of this section, you must still use all valid data from the continuous emission monitoring systems in calculating emissions concentrations in accordance with § 60.5940.

§ 60.5940 How do I convert my 1-hour arithmetic averages into the appropriate averaging times and units?

(a) Use equation 1 in § 60.6140(a) to calculate emissions at 7 percent oxygen.

(b) Use the test methods in Table 4 to Subpart VVVV to calculate the 24-hr daily geometric average concentrations and percent reductions of sulfur dioxide emissions and the 24-hr daily arithmetic average for concentrations of nitrogen oxides.

(c) Calculate the 4-hour block or 24-hour daily arithmetic averages specified in Table 1 to Subpart VVVV (as applicable) from 1-hour arithmetic averages expressed in parts per million by volume corrected to 7 percent oxygen (dry basis) for concentrations of carbon monoxide. CEMS data during warmup, startup, and shutdown, as defined in this subpart, are not corrected to 7

percent oxygen, and are used as measured.

(d) If you elect to continuously monitor emissions of particulate matter, mercury, cadmium, lead, or hydrogen chloride, use EPA Reference Method 19, section 12.4.1, in appendix A of this part, to calculate a 24-hour daily block arithmetic average for emission concentrations.

§ 60.5945 What is required for my continuous opacity monitoring system and how are the data used?

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

(b) Install, evaluate, and operate each continuous opacity monitoring system according to § 60.13.

(c) The output of the continuous opacity monitoring system shall be recorded on a 6-minute average basis.

(d) Complete an initial evaluation of your continuous opacity monitoring system according to Performance Specification 1 in appendix B of this part. Complete the evaluation no later than 180 days after the date of the initial startup of the municipal waste combustor, as specified under § 60.8.

(e) Follow Table 4 to Subpart VVVV to establish the procedures and test methods to determine compliance with the opacity limit in Table 2 to Subpart VVVV. The data obtained from your continuous opacity monitoring system are not used to determine compliance with the opacity limit.

§ 60.5950 What additional requirements must I meet for the operation of my continuous emission monitoring systems and continuous opacity monitoring system?

(a) Use the required span values and applicable performance specifications in Table 3 to Subpart VVVV.

(b) For continuous emission monitoring systems measuring carbon monoxide, if your municipal waste combustor is subject to the 100 parts per million dry volume carbon monoxide standard, the relative accuracy criterion of 5 parts per million dry volume is calculated as the absolute value of the mean difference between the reference method and continuous emission monitoring systems.

§ 60.5955 What must I do if any of my continuous emission monitoring systems are temporarily unavailable to meet the data collection requirements?

(a) When you are unable to obtain emissions of particulate matter, sulfur dioxide, or nitrogen oxides because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, you

must obtain emissions data by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 and provide, as necessary, valid emissions data for all times that the municipal waste combustor is operated.

(b) If you are unable to obtain emissions of carbon monoxide emissions because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, you must obtain emissions data by using other monitoring systems as approved by the Administrator or EPA Reference Method 10 and provide, as necessary, valid emissions data for all times that the municipal waste combustor is operated.

(c) If you elect to continuously monitor mercury, cadmium, lead, or hydrogen chloride and you are unable to obtain emissions data because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, you must obtain emissions data by using other monitoring systems as approved by the Administrator.

Stack Testing

§ 60.5960 What types of stack tests must I conduct?

Conduct initial and annual stack tests to measure the emission levels of particulate matter, opacity, cadmium, lead, mercury, hydrogen chloride, dioxins/furans, and fugitive ash in accordance with the methods specified in Table 4 to Subpart VVVV.

§ 60.5965 How are the stack test data used?

You must use results of stack tests for particulate matter, opacity, cadmium, lead, mercury, hydrogen chloride, dioxins/furans, and fugitive ash to demonstrate compliance with the emission limits in Table 2 to Subpart VVVV. When calculating total dioxins/furans, zero may be used for congeners that are below the estimated detection limit (EDL). For estimated maximum possible concentration (EMPC) results, zero may be used when the EMPC is below the EDL, otherwise the EMPC must be used in determining total dioxins/furans. To demonstrate compliance for carbon monoxide, nitrogen oxides, and sulfur dioxide, see § 60.5910.

§ 60.5970 What schedule must I follow for the stack testing?

(a) Conduct initial stack tests for sulfur dioxide, nitrogen oxides, and each of the pollutants listed in § 60.5960 within 60 days after your municipal

waste combustor reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup.

(b) Conduct annual stack tests for the each of the pollutants listed in § 60.5960 after the initial stack test. Conduct each annual stack test no less than 9 calendar months and no more than 15 calendar months following the previous performance test, except as specified in § 60.5985 of this section. You must complete five performance tests in each 5-year calendar period.

§ 60.5975 What procedures and test methods must I use to stack test?

(a) Follow Table 4 to Subpart VVVV to establish the procedures and test methods, and other specific testing requirements for the different pollutants.

(b) Stack tests for all the pollutants must consist of at least three test runs, as specified in § 60.8, conducted under representative full load operating conditions. For particulate matter, opacity, cadmium, lead, mercury, hydrogen chloride, and dioxins/furans use the arithmetic average of the pollutant emission concentrations from the three test runs to determine compliance with the emission limits in Table 2 to Subpart VVVV. For fugitive ash, use the arithmetic average duration of visible emissions per hour as calculated from three 1-hr observations to determine compliance with the emission limits in Table 2 to Subpart VVVV.

(c) Obtain an oxygen (or carbon dioxide) measurement at the same time as your pollutant measurements to determine diluent gas levels, as specified in § 60.5910.

(d) You may request that compliance with emission limits 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 shall be established as specified in § 60.5930.

(e) Use equation 1 in § 60.6140(a) to calculate emission levels at 7 percent oxygen (or an equivalent carbon dioxide basis). See the individual test methods in Table 4 to Subpart VVVV for other required equations.

§ 60.5980 May I conduct stack testing less often?

(a) For annual performance stack tests for dioxins/furans, you may conduct annual stack tests on an alternate performance testing schedule for the purposes of evaluating system performance to establish new operating parameter levels, testing new

technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. You may test one unit for dioxins/furans and apply the dioxins/furans operating parameters to similarly designed and equipped units on site if you meet both of the following conditions. First, you have multiple municipal waste combustors onsite that are subject to this subpart. Second, all those municipal waste combustors have demonstrated levels of dioxins/furans emissions less than or equal to 5.5 nanograms per dry standard cubic meter (total mass) for 2 consecutive years. In that case, you may choose to conduct annual stack tests on only one municipal waste combustor per year at your facility. The provision only applies to performance stack testing for dioxins/furans emissions. You must meet the requirements in paragraphs (b) through (e) of this section.

(b) At a minimum, you must conduct a performance test for dioxins/furans emissions for one municipal waste combustor on an annual basis (no less than 9 calendar months and no more than 15 months following the previous performance test), and you must complete five performance tests in each 5-year calendar period. Each year a different municipal waste combustor must be tested, and the municipal waste combustors must be tested in sequence (e.g., unit 1, unit 2, unit 3, as applicable).

(1) If each annual performance test continues to indicate a dioxins/furans emission level less than or equal to 5.5 nanograms per dry standard cubic meter (total mass), you may continue to conduct a performance test on only one municipal waste combustor per year.

(2) If any annual performance test indicates a dioxins/furans emission level greater than 5.5 nanograms per dry standard cubic meter (total mass), you must conduct all subsequent annual performance tests on all municipal waste combustors. You must continue to conduct performance tests on all units annually until you can demonstrate dioxins/furans emission level less than or equal to 5.5 nanograms per dry standard cubic meter (total mass) through performance tests for all units subject to this subpart for 2 consecutive years.

(c) Upon meeting the requirements in paragraph (b) of this section for one affected facility, you may elect to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels for dioxins/furans as established in § 60.6005 to

similarly designed and equipped units on site.

(d) Upon testing each subsequent unit in accordance with the testing schedule established in paragraph (b) of this section, the dioxins/furans and mercury emissions of the subsequent unit must not exceed the dioxins/furans and mercury emissions measured in the most recent test of that unit prior to the revised operating parameter limits.

(e) If you follow the performance testing schedule specified in paragraph (b) of this section and apply the carbon injection system operating parameters to similarly designed and equipped units on site, you must follow the procedures specified in § 60.6090(j) for reporting, including the procedures specified in § 60.6090(i) for reporting the selection of this schedule.

§ 60.5985 May I conduct continuous monitoring or sampling in lieu of stack testing?

(a) In lieu of conducting performance stack tests according to the requirements of § 60.5960 to demonstrate continuous compliance for particulate matter, cadmium, lead, mercury, or hydrogen chloride, you may install, calibrate, maintain, and operate continuous emissions monitoring systems for monitoring emissions according to the requirements of § 60.5905 through § 60.5955. If you elect to continuously monitor emissions instead of conducting performance testing, you are not required to complete annual performance testing as specified in Table 4 to Subpart VVVV. If you elect to continuously monitor particulate matter emissions, you are not required to continuously monitor opacity as specified in § 60.5905(d) and § 60.5945.

(b) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, you must also meet the following requirements:

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

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

(c) If you elect to install, calibrate, maintain, and operate a continuous emission monitoring system for cadmium, lead, mercury, or hydrogen chloride, develop and submit for approval by EPA, a site-specific mercury, cadmium, lead, or hydrogen chloride monitoring plan that addresses the elements and requirements in paragraphs (c)(1) through (7) of this section.

(1) Installation of the continuous emission monitoring system sampling probe or other interface at a

measurement location relative to each municipal waste combustor such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last control device).

(2) Performance and equipment specifications for the sample interface, the pollutant concentration analyzer, and the data collection and reduction system.

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

(4) Provisions for periods when the continuous emission monitoring system is out of control, including the requirements described in paragraphs (c)(4)(i) through (iii) of this section:

(i) A continuous emission monitoring system is out of control if either of the following conditions are met: 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; or the continuous emission monitoring system fails a performance test audit (*e.g.*, cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.

(ii) When the continuous emission monitoring system is out of control, you must take corrective action and repeat all necessary tests that indicate that the system is out of control until the performance requirements are within the applicable limits. The beginning of the out-of-control period is the hour you conduct a performance check (*e.g.*, calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and your successful demonstration that the system is within the allowable limits. You may not use recorded data from the period the continuous emission monitoring system is out of control in data averages and calculations or to meet any data availability requirements.

(iii) You must submit all information concerning out-of-control periods for your continuous emission monitoring system, including start and end dates and hours and descriptions of corrective actions taken, in the annual or semiannual compliance reports required in § 60.6105(d).

(5) Ongoing data quality assurance procedures for continuous emission monitoring systems as described in paragraphs (c)(5)(i) and (ii) of this section.

(i) A continuous emission monitoring system quality control program. You must develop and submit to EPA for approval, upon request, a site-specific performance evaluation test plan for the continuous emission monitoring system performance evaluation required under paragraph (c)(5)(ii) of this section. In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the operations described in paragraphs (c)(5)(i)(A) through (c)(5)(i)(F) of this section.

(A) Initial and any subsequent calibration of the continuous emission monitoring system;

(B) Determination and adjustment of the calibration drift of the continuous emission monitoring system;

(C) Preventive maintenance of the continuous emission monitoring system, including spare parts inventory;

(D) Data recording, calculations, and reporting;

(E) Accuracy audit procedures, including sampling and analysis methods; and

(F) Program of corrective action for a malfunctioning continuous emission monitoring system.

(ii) Your performance evaluation test plan must include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal quality assurance program must include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous emission monitoring system performance, for example, plans for relative accuracy testing using the appropriate reference method in § 60.5920(c). The external quality assurance program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

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

(7) You must operate and maintain the continuous emission monitoring system in continuous operation according to the site-specific monitoring plan and procedures 5 and 6 of appendix F of this part.

(d) You may use a continuous emission monitoring system for mercury or hydrogen chloride following the date of approval of the site-specific monitoring plan required in paragraph (c) of this section. You may use a continuous emission monitoring system for cadmium or lead following the date a final performance specification applicable to a cadmium or lead monitor is published in the **Federal Register** and the date of approval of the site-specific monitoring plan required in paragraph (c) of this section.

(e) In lieu of conducting performance stack tests according to the requirements of § 60.5960 to demonstrate continuous compliance for mercury or dioxins/furans, you may install, calibrate, maintain, and operate a continuous automated sampling system for monitoring mercury or dioxins/furans emissions and record the output of the system. For dioxins/furans emissions, you must also analyze the sample using EPA Method 23.

(f) You may use a continuous automated sampling system for dioxins/furans following the date a final performance specification applicable to dioxins/furans from monitors is published in the **Federal Register** or the date of approval of a site-specific monitoring plan.

(g) If you elect to use a continuous automated sampling system for dioxins/furans or mercury, you must meet the following requirements:

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

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

(3) Complete your initial performance evaluation of the continuous automated sampling system no later than 180 days after the date of initial startup of your municipal waste combustor, as specified under § 60.8 of subpart A of this part, or, if you previously determined compliance by conducting a performance test, within 180 days of notification to the Administrator of use of the continuous automated sampling system, whichever is later.

(4) You may request that compliance with the emission limits 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 shall be established as specified in § 60.5930.

(5) Conduct an initial performance test for emissions as required under § 60.8 of subpart A of this part. Determine compliance with the emission limits in Table 2 to Subpart VVVV using the continuous automated

sampling system specified in paragraph (e) of this section to collect integrated samples and analyze emissions for the following time periods:

(i) For dioxins/furans, collect an integrated sample over each 2-week period. Analyze the collected samples using Method 23.

(ii) For mercury, collect an integrated sample over each 24-hour daily period. Analyze the sample according to the applicable final performance specification or the approved site-specific monitoring plan required by paragraph (h) of this section.

(6) Determine compliance with the emission limits in Table 2 to Subpart VVVV based on 2-week emission concentrations for dioxins/furans and on the 24-hour daily emission concentrations for mercury using samples collected at the system outlet. For mercury percent reductions, also use the corresponding 24-hour daily emission concentration samples collected at the system inlet. The emission concentrations shall be expressed in nanograms per dry standard cubic meter (total mass) for dioxins/furans and micrograms per dry standard cubic meter for mercury, corrected to 7 percent oxygen (dry basis). Do not correct CEMS data during warmup, startup, and shutdown to 7 percent oxygen. CEMS data during warmup, startup, and shutdown are used as measured.

(7) Beginning on the date two years after the final performance specification for continuous automated sampling systems for dioxins/furans is published in the **Federal Register** or on the date two years after approval of a site-specific monitoring plan, you must operate your continuous automated sampling system and collect emissions for all times that your municipal waste combustor is operating.

(8) Use all valid data in calculating emission concentrations.

(9) For mercury, operate the continuous automated sampling system according to Performance Specification 12B in appendix B of this part or, for mercury or dioxins/furans, the approved site-specific monitoring plan.

(10) If you elect to install, calibrate, maintain, and operate a continuous automated sampling system for dioxins/furans or mercury, develop and implement a site-specific monitoring plan as specified in paragraph (h) of this section. If you rely on a performance specification, you may refer to that document in addressing the applicable procedures and criteria. For mercury, you must incorporate procedure 5 of appendix F to this part into the site-specific monitoring plan.

(11) When you are unable to obtain emissions data because of continuous automated sampling system breakdowns, repairs, quality assurance checks, or adjustments, you must obtain parametric monitoring data by using other monitoring systems as approved by EPA.

(h) If you elect to install, calibrate, maintain, and operate a continuous automated sampling system for dioxins/furans or mercury, develop and submit for approval by EPA a site-specific monitoring plan that has sufficient detail to assure the validity of the continuous automated sampling system data and that addresses the elements and requirements in paragraphs (h)(1) through (7) of this section.

(1) Installation of the continuous automated sampling system sampling probe or other interface at a measurement location relative to each municipal waste combustor such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).

(2) Performance and equipment specifications for the sample interface, the pollutant concentration analytical method, and the data collection system.

(3) Performance evaluation procedures and acceptance criteria.

(4) Provisions for periods when the continuous automated sampling system is malfunctioning or is out of control, including the requirements described in paragraphs (h)(4)(i) through (iii) of this section.

(i) The site-specific monitoring plan must identify criteria for determining that the continuous automated sampling system is out of control, including periods when the sampling system is not collecting a representative sample or is malfunctioning, or when the analytical method does not meet site-specific quality criteria established in paragraph (h)(5) of this section.

(ii) When the continuous automated sampling system is out of control, take corrective action and repeat all necessary tests that indicate that the system is out of control until the performance requirements are within the applicable limits. The out-of-control period includes all hours that the sampling system was not collecting a representative sample or was malfunctioning, or hours represented by a sample for which the analysis did not meet the relevant quality criteria. You may not use emissions data from the period the continuous automated sampling system is out-of-control period to determine compliance with the emission limits or to meet any data availability requirements.

(iii) You must submit all information concerning out-of-control periods for your continuous automated sampling system, including start and end dates and hours, estimates of emissions during the out-of-control period and the basis of the estimate, and descriptions of corrective actions taken, in the annual or semiannual compliance reports required in § 60.6105(d).

(5) Ongoing data quality assurance procedures for continuous automated sampling systems as described in paragraphs (h)(5)(i) and (ii) of this section.

(i) A continuous automated sampling system and analysis quality control program. You must develop and submit to EPA for approval, upon request, a site-specific performance evaluation test plan for the continuous automated sampling system performance evaluation required in paragraph (h)(5)(ii) of this section. In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the operations described in paragraphs (h)(5)(i)(A) through (G) of this section.

(A) Correct placement, installation of the continuous automated sampling system such that the system is collecting a representative sample of gas;

(B) Initial and subsequent calibration of flow such that the sample collection rate of the continuous automated sampling system is known and verifiable;

(C) Procedures to assure representative (*e.g.*, proportional or isokinetic) sampling;

(D) Preventive maintenance of the continuous automated sampling system, including spare parts inventory and procedures for cleaning equipment, replacing sample collection media, or other servicing at the end of each sample collection period;

(E) Data recording and reporting, including an automated indicator and recording device to show when the continuous automated monitoring system is operating and collecting data and when it is not collecting data;

(F) Accuracy audit procedures for analytical methods; and

(G) Program of corrective action for a malfunctioning continuous automated sampling system.

(ii) Your performance evaluation test plan must include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision,

accuracy, and completeness of data. The internal quality assurance program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous automated sampling system performance, for example, plans for relative accuracy testing using the appropriate reference method in paragraph (g)(3) of this section, and an assessment of quality of analysis results. The external quality assurance program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(6) You must conduct a performance evaluation of each continuous automated sampling system in accordance with the site-specific monitoring plan.

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

Other Monitoring Requirements

§ 60.5990 Must I meet other requirements for continuous monitoring?

You must also monitor all the following three operating parameters:

(a) Load level of each municipal waste combustor.

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

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

§ 60.5995 How do I monitor the load of my municipal waste combustor?

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

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

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

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

(4) Design, construct, install, calibrate, and use nozzles or orifices for flow rate measurements, using the recommendations in "American Society

of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, part II of Fluid Meters," 6th Edition (1971), chapter 4 (incorporated by reference, see § 60.17).

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

Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.

(b) Determine the maximum demonstrated municipal waste combustor load during the initial performance test for dioxins/furans and each subsequent performance test specified in § 60.5970 during which you achieve compliance with the dioxins/furans emission limit in Table 2 to Subpart VVVV. The maximum demonstrated municipal waste combustor load is the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test. If a subsequent dioxins/furans performance test is being performed on only one municipal waste combustor as specified in § 60.5980, you may apply the same maximum municipal waste combustor load from the tested facility for all the similarly designed and operated municipal waste combustors.

§ 60.6000 How do I monitor the temperature of flue gases at the inlet of my particulate matter control device?

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

(b) Calculate the temperature of the flue gas stream in 4-hour block arithmetic averages.

(c) Determine the maximum demonstrated particulate matter control device temperature for each particulate matter control device during the initial performance test for dioxins/furans and each subsequent performance test specified in § 60.5970 during which you achieve compliance with the dioxins/furans emission limit. The maximum demonstrated particulate matter control device temperature is the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test. If a subsequent dioxins/furans performance test is being performed on only one municipal waste combustor as specified in § 60.5980, you may apply the same maximum particulate matter control device temperature from the tested

facility for all the similarly designed and operated municipal waste combustors.

§ 60.6005 How do I monitor the injection rate of activated carbon?

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

(a) Select a carbon injection system operating parameter(s) that can be used to calculate carbon feed rate (for example, screw feeder speed, hopper volume, or hopper refill frequency).

(b) During the initial and each subsequent dioxins/furans and mercury performance stack test specified in § 60.5970, estimate an average carbon feed rate in kilograms (or pounds) per hour. You must determine an average operating parameter level that correlates to the carbon feed rate and establish a relationship between the operating parameter(s) and the carbon feed rate in order to estimate the average carbon feed rate. If a subsequent dioxins/furans performance test is being performed on only one municipal waste combustor as specified in § 60.5980, you may apply the same estimated average carbon mass feed rate from the tested facility for all the similarly designed and operated municipal waste combustors.

(c) Continuously monitor the selected carbon injection operating parameter(s) (as specified in paragraph (b) of this section) during all periods when the municipal waste combustor is operating and combusting waste, and calculate the 8-hour block average carbon feed rate in kilograms (or pounds) per hour, based on the selected operating parameter. The 8-hour block average must equal or exceed the level(s) documented during the performance tests specified under paragraph (b) of this section, except that during the annual dioxins/furans or mercury performance test and the 2 weeks preceding the annual dioxins/furans or mercury performance test, the limit for average mass carbon feed rate may be waived following permission of the Administrator if the tests are for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

(d) You must estimate the total carbon usage of the facility (kilograms or pounds) for each calendar quarter using two independent methods:

(1) The weight of carbon delivered to the facility.

(2) Estimate the average carbon mass feed rate in kilograms per hour or

pounds per hour for each hour of operation for each municipal waste combustor, based on the selected carbon injection operating parameter(s) specified in paragraph (b) of this section, and as specified in equation 2 to § 60.6140.

(e) Use pneumatic injection pressure or another carbon injection system operational indicator for additional verification of proper carbon injection system operation. The operational indicator must provide an instantaneous visual and/or audible alarm to alert the operator of a potential interruption in the carbon feed that would not normally be indicated by direct monitoring of carbon mass feed rate (e.g., continuous weight loss feeder) or monitoring of the carbon system operating parameter(s) that are the indicator(s) of carbon mass feed rate (e.g., screw feeder speed). The carbon injection system operational indicator used to provide additional verification of carbon injection system operation, including basis for selecting the indicator and operator response to the indicator alarm, shall be included in the site-specific operating manual required under § 60.5855 of this subpart.

§ 60.6010 What is the minimum amount of monitoring data I must collect with my continuous parameter monitoring systems?

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

(1) Load level of the municipal waste combustor.

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

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

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

(c) Obtain valid 1-hour arithmetic averages for at least 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter.

§ 60.6015 What requirements must I meet for estimating my municipal waste combustor capacity?

(a) You must calculate the capacity for each continuous municipal waste combustor (e.g., capable of combusting continuously for a 24-hour period) based on 24 hours of operation at the maximum charging rate. You must determine the maximum charging rate differently for combustors that are designed based on heat capacity and for combustors that are not designed based on heat capacity.

(1) For combustors that are designed based on heat capacity, calculate the maximum charging rate based on the maximum design heat input capacity of the unit and a heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel, or a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel.

(2) For combustors that are not designed based on heat capacity, the maximum charging rate is the maximum design charging rate.

(b) You must calculate the capacity for each batch feed municipal waste combustor based on the maximum design amount of municipal solid waste that can be charged per batch multiplied by the maximum number of batches that could be processed in a 24-hour period.

(1) You must calculate the maximum number of batches that could be processed in a 24-hour period by dividing 24 hours by the design number of hours required to process one batch of municipal solid waste. The maximum number of batches may include a fraction (e.g., if one batch requires 16 hours, then 24/16, or 1.5 batches, could be combusted in a 24-hour period).

(2) For batch combustors that are designed based on heat capacity, calculate the municipal waste combustor capacity in megagrams per day, based on the design heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel or a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel.

Recordkeeping

§ 60.6020 What records must I keep?

You must keep all the following five types of records:

(a) Notification of construction, materials separation plan, and siting analysis.

(b) Operator training and certification.

(c) Stack tests.

(d) Continuously monitored pollutants and parameters.

(e) Carbon feed rate.

§ 60.6025 Where must I keep my records and for how long?

(a) Keep all records onsite in paper copy or electronic format unless the Administrator approves another format. Any records required to be maintained by this subpart that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a

delegated air agency or the EPA as part of an on-site compliance evaluation.

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

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

§ 60.6030 What records must I keep for the materials separation plan and siting analysis?

You must keep records of all the following five items:

(a) The date of each record.

(b) The final materials separation plan.

(c) The final siting analysis.

(d) A record of the location and date of the public meetings.

(e) Your responses to the public comments received during the public comment periods for the materials separation plan and siting analysis.

§ 60.6035 What records must I keep for operator training and certification?

You must keep records of all the following six items:

(a) *Records of provisional certifications.* Include three items:

(1) Names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who are provisionally certified by the American Society of Mechanical Engineers or an equivalent state-approved certification program.

(2) Dates of the initial and renewal provisional certifications.

(3) Documentation showing current provisional certifications.

(b) *Records of full certifications.*

Include three items:

(1) Names of the chief facility operator, shift supervisors, and control room operators who are fully certified by the American Society of Mechanical Engineers or an equivalent state-approved certification program.

(2) Dates of initial and renewal full certifications.

(3) Documentation showing current full certifications.

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

(1) Names of the chief facility operator, shift supervisors, and control room operators who have completed the EPA or state municipal waste combustion operator training course.

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

(3) Documentation showing completion of the operator training course.

(d) *Records of reviews for site-specific operating manuals.* Include all the following three items:

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

(2) Date of the initial review.

(3) Dates of subsequent annual reviews.

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

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

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

(i) Time of day that all certified persons are offsite.

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

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

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

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

§ 60.6040 What records must I keep for stack tests?

For stack tests required under § 60.5960, you must keep records of all the following four items:

(a) The results of the initial and annual performance stack tests for eight pollutants or parameters recorded in the appropriate units of measure specified in Table 2 to Subpart VVVV:

(1) Dioxins/furans.

(2) Cadmium.

(3) Lead.

(4) Mercury.

(5) Opacity.

(6) Particulate matter.

(7) Hydrogen chloride.

(8) Fugitive ash.

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

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

(d) The calendar date of each record.

§ 60.6045 What records must I keep for continuously monitored pollutants or parameters?

You must keep records of all the following eight items:

(a) *Records of monitoring data.*

Document all the following eight 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 1-hour average load levels of your municipal waste combustor.

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

(7) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing, all 1-hour average concentrations of particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions.

(8) If you monitor emissions with a CEMS, you must indicate which data are CEMS data during warmup, startup, and shutdown.

(b) *Records of average concentrations.* Document seven parameters:

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

(2) All 24-hour daily arithmetic average concentrations of nitrogen oxides emissions.

(3) All 4-hour block or 24-hour daily block arithmetic average concentrations of carbon monoxide emissions, as applicable.

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

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

(6) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing, all 24-hour daily arithmetic average concentrations and percent reductions, as appropriate, of particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions.

(7) If you elect to use a continuous automated sampling system to monitor mercury or dioxins/furans instead of conducting performance testing, all integrated 24-hour mercury concentrations (or percent reductions)

or all integrated 2-week dioxins/furans concentrations.

(c) *Records of exceedances.* Document all the following three items:

(1) Calendar dates whenever any of the seven pollutant or parameter levels recorded in paragraph (b) of this section or the opacity level recorded in paragraph (a)(1) of this section did not meet the emission limits or operating levels specified in this subpart.

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

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

(d) *Records of minimum data.*

Document three items:

(1) Calendar dates for which you did not collect the minimum amount of data required under §§ 60.5935 and 60.6010. Record the dates for the following types of pollutants and parameters:

(i) Sulfur dioxide emissions.

(ii) Nitrogen oxides emissions.

(iii) Carbon monoxide emissions.

(iv) Load levels of your municipal waste combustor.

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

(vi) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance tests, the particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions.

(vii) If you elect to use continuous automated sampling systems for dioxins/furans or mercury, dates and times when the sampling systems were not operating or were not collecting a valid sample.

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

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

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

(1) Sulfur dioxide emissions.

(2) Nitrogen oxides emissions.

(3) Carbon monoxide emissions.

(4) Load levels of your municipal waste combustor.

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

(6) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or who elect to use continuous automated sampling systems for dioxins/furans or mercury emissions, instead of conducting performance tests:

(i) Particulate matter emissions data.

(ii) Cadmium emissions data.

(iii) Lead emissions data.

(iv) Mercury emissions data.

(v) Hydrogen chloride emissions data.

(vi) Dioxins/furans emissions data.

(f) *Records of drift and accuracy.*

Document the results of your daily drift tests and quarterly accuracy determinations according to the following:

(1) For sulfur dioxides, nitrogen oxides, and carbon monoxides, according to Procedure 1 of appendix F of this part. Keep the records for the sulfur dioxide, nitrogen oxides, and carbon monoxide continuous emissions monitoring systems.

(2) If you elect to continuously monitor particulate matter instead of conducting performance testing, according to Procedure 2, appendix F of this part. Keep the records for the particulate matter continuous emissions monitoring systems.

(3) If you elect to continuously monitor cadmium, lead, mercury, or hydrogen chloride instead of conducting performance testing, maintain the results of all quality evaluations, including daily drift tests and periodic accuracy determinations, specified in the approved site-specific performance evaluation test plan or as specified in Procedures 5 and 6 of appendix F of this part, as applicable.

(4) If you elect to use continuous automated sampling systems for dioxins/furans or mercury, the results of all quality evaluations specified in the approved site-specific performance evaluation test plan or Procedure 5 of appendix F of this part, as applicable.

(g) *Records of the relationship between oxygen and carbon dioxide.* If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, document the relationship between oxygen and carbon dioxide, as specified in § 60.5930.

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

(i) *Time system.* All continuous monitoring systems data must be recorded using “local time” for the location where the municipal waste combustor is located, unless the Administrator approves an alternative time system.

(j) *Additional recordkeeping for continuous cadmium, lead, mercury, or hydrogen chloride monitoring systems.* In addition to the requirements of paragraphs (a) through (i) of this section, if you elect to install a continuous emission monitoring system for cadmium, lead, mercury, or hydrogen chloride, you must maintain the following additional records:

(1) All required continuous emission monitoring measurements (including monitoring data recorded during unavoidable continuous emission monitoring system breakdowns and out-of-control periods).

(2) The date and time identifying each period during which the continuous emission monitoring system was inoperative except for zero (low-level) and high-level checks.

(3) The date and time identifying each period during which the continuous emission monitoring system was out of control, as defined in § 60.5985.

(4) The date and time of commencement and completion of each period of excess emissions and parameter monitoring exceedances that occurs during warmups, startups, shutdowns, and malfunctions of the municipal waste combustor.

(5) The date and time of commencement and completion of each time period of excess emissions and parameter monitoring exceedances, that occurs during periods other than warmups, startups, shutdowns, and malfunctions of the municipal waste combustor.

(6) The nature and cause of any malfunction (if known).

(7) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions.

(8) The nature of the repairs or adjustments to the continuous emission monitoring system that was inoperative or out of control.

(9) All procedures that are part of a quality control program developed and implemented for the continuous emission monitoring system.

(10) When more than one continuous emission monitoring system is used to measure the emissions from one municipal waste combustor (e.g., multiple breechings, multiple outlets), record the results as required for each continuous emission monitoring system.

(k) *Additional recordkeeping for continuous automated sampling systems.* If you elect to install a continuous automated sampling system for dioxins/furans or mercury, you must maintain the following additional records:

(1) All required 24-hour integrated mercury concentration (or percent reduction) or 2-week integrated dioxins/furans concentration data (including any data obtained during unavoidable system breakdowns and out-of-control periods).

(2) The date and time identifying each period during which the continuous automated sampling system was inoperative.

(3) The date and time identifying each period during which the continuous automated sampling system was out of control.

(4) The date and time of commencement and completion of each period of excess emissions and parameter monitoring exceedances that occurs during warmups, startups, shutdowns, and malfunctions of the municipal waste combustor.

(5) The date and time of commencement and completion of each time period of excess emissions and parameter monitoring exceedances that occurs during periods other than warmups, startups, shutdowns, and malfunctions of the municipal waste combustor.

(6) The nature and cause of any malfunction (if known).

(7) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions.

(8) The nature of the repairs or adjustments to the continuous automated sampling system that was inoperative or out of control.

(9) All procedures that are part of a quality control program developed and implemented for the continuous automated sampling system.

(10) When more than one continuous automated sampling system is used to measure the emissions from one municipal waste combustor (e.g., multiple breechings, multiple outlets), record the results as required for each system.

§ 60.6050 What records must I keep for municipal waste combustors that use activated carbon?

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

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

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

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

(3) Average carbon feed rate in kilograms (or pounds) per hour estimated for each hour of operation. Include supporting calculations in the records.

(4) Total carbon usage for each calendar quarter as estimated in § 60.6005(d). Include supporting calculations in the records.

(5) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).

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

(1) The calendar dates when the average carbon feed rate was less than the average hourly carbon feed rates determined during the most recent stack test for dioxins/furans or mercury emissions.

(2) Reasons for the low carbon feed rates.

(3) Corrective actions you took, or are taking, to meet the average carbon feed rate requirement.

(c) *Records of carbon injection system operating parameter indicators.* Document three items:

(1) Calendar dates for which the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) recorded are below the level(s) estimated during the performance tests.

(2) Reasons for the occurrences.

(3) Corrective actions you took or are taking to meet the levels estimated during the performance tests.

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

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

Reporting

§ 60.6055 What reports must I submit before I submit my notice of construction?

You must submit all the following five items on or before the date that the application for a construction permit is submitted under 40 CFR part 51, subpart I, or 40 CFR part 52, as applicable:

(a) Your preliminary draft materials separation plan, as specified in § 60.5745.

(b) Your revised materials separation plan, as specified in § 60.5765(c).

(c) Your notice of the initial public meeting for your draft materials separation plan, as specified in § 60.5750(b).

(d) A transcript of the initial public meeting, as specified in § 60.5760(f).

(e) A copy of the document that summarizes your responses to the public comments you received during the initial public comment period, as specified in § 60.5765(a).

§ 60.6060 What must I include in my notice of construction?

(a) Include all the following ten items:

(1) A statement of your intent to construct the municipal waste combustor.

(2) The planned initial startup date of your municipal waste combustor.

(3) The types of fuels you plan to combust in your municipal waste combustor.

(4) The capacity of your municipal waste combustor including supporting capacity calculations, as specified in § 60.6015.

(5) Your siting analysis, as specified in § 60.5805.

(6) Your final materials separation plan, as specified in § 60.5785.

(7) Your notice of the second public meeting (siting analysis meeting), as specified in § 60.5810(b).

(8) A transcript of the second public meeting, as specified in § 60.5820(d).

(9) A copy of the document that summarizes your responses to the public comments you received during the second public comment period, as specified in § 60.5825(a).

(10) Your final siting analysis, as specified in § 60.5825(c).

(b) Submit your notice of construction no later than 30 days after you commence construction, reconstruction, or modification of your municipal waste combustor.

§ 60.6065 What reports must I submit after I submit my notice of construction and in what form?

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

(b) Within 60 days after the date of completing each performance test or continuous emissions monitoring systems (CEMS) performance evaluation that includes a relative accuracy test audit (RATA), you must submit the results following the procedures specified in paragraph (d) of this section. Data collected using test methods and performance evaluations of CEMS measuring RATA pollutants that are supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test or performance evaluation must be submitted in a file format generated using the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. Data collected using test

methods and performance evaluations of CEMS measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test or performance evaluation must be included as an attachment in the ERT or an alternate electronic file.

(c) For the semiannual and annual reports specified under paragraph (a) of this section, beginning on March 10, 2027 or once the report template for this subpart has been available on the Compliance and Emissions Data Reporting Interface (CEDRI) website (<https://www.epa.gov/electronic-reporting-air-emissions/cedri>) for one year, whichever date is later, submit all subsequent reports using the appropriate electronic report template on the CEDRI website for this subpart and following the procedure specified in paragraph (d) of this section. The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

(d) If you are required to submit notifications or reports following the procedure specified in this paragraph (d), you must submit notifications or reports to the EPA via the CEDRI website, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information in the report or notification, you must submit a complete file in the format specified in this subpart, including information claimed to be CBI, to the EPA following the procedures in paragraphs (d)(1) and (2) of this section. Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions

data will not be protected as CBI and will be made publicly available. You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in this paragraph (d).

(1) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqps_cbi@epa.gov, and as described above, should include clear CBI markings. ERT files should be flagged to the attention of the Branch Manager, Measurement Strategies Branch; all other files should be flagged to the attention of the Large Municipal Waste Combustor Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqps_cbi@epa.gov to request a file transfer link.

(2) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: OAQPS Document Control Officer (C404-02), OAQPS, U.S. Environmental Protection Agency, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North Carolina 27711. ERT files should be sent to the attention of the Branch Manager, Measurement Strategies Branch, and all other files should be sent to the attention of the Large Municipal Waste Combustor Sector Lead. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(e) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with that reporting requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in paragraphs (e)(1) through (7) of this section.

(1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

(2) The outage must have occurred within the period of time beginning five business days prior to the date that the submission is due.

(3) The outage may be planned or unplanned.

(4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should

have known, that the event may cause or has caused a delay in reporting.

(5) You must provide to the Administrator a written description identifying:

(i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

(f) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with that reporting requirement. To assert a claim of force majeure, you must meet the requirements outlined in paragraphs (f)(1) through (5) of this section.

(1) You may submit a claim if a *force majeure* event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due. For the purposes of this section, a *force majeure* event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.*, hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.*, large scale power outage).

(2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(3) You must provide to the Administrator:

(i) A written description of the *force majeure* event;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the *force majeure* event;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(4) The decision to accept the claim of *force majeure* and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(5) In any circumstance, the reporting must occur as soon as possible after the *force majeure* event occurs.

(g) Keep a copy of all reports required by §§ 60.6080, 60.6090, and 60.6105 onsite for 5 years.

(h) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride or to use continuous automated sampling systems for dioxins/furans or mercury emissions instead of conducting performance tests, you must notify the Administrator one month prior to starting or stopping use of the particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxins/furans continuous emission monitoring systems or continuous automated sampling systems.

(i) If you elect to install a continuous emission monitoring system for cadmium, lead, mercury, or hydrogen chloride, or you elect to install a continuous automated sampling system for dioxins/furans or mercury, you must also submit to EPA for approval, the site-specific monitoring plan, including the site-specific performance evaluation test plan for the continuous emission monitoring system or the continuous automated sampling system. You must maintain copies of the site-specific monitoring plan on record for the life of the municipal waste combustor to be made available for inspection, upon request, by the Administrator. If the site-specific monitoring plan is revised and approved, you must maintain the previous (*i.e.*, superseded) versions of the plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan.

§ 60.6070 What are the appropriate units of measurement for reporting my data?

See Tables 1 and 2 to Subpart VVVV for appropriate units of measurement.

§ 60.6075 When must I submit the initial performance test report?

As specified in § 60.8(a), submit your initial performance test report within 60

days after your municipal waste combustor reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup.

§ 60.6080 What must I include in my initial performance test report?

You must include seven items:

(a) The emission levels measured on the date of the initial evaluation of your continuous emission monitoring systems for all of the following pollutants or parameters as recorded in accordance with § 60.6045(b).

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

(2) The 24-hour daily arithmetic average concentration of nitrogen oxides emissions.

(3) The 4-hour block or 24-hour daily arithmetic average concentration of carbon monoxide emissions, as applicable.

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

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

(6) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing, all 1-hour average concentrations of particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions.

(7) If you monitor emissions with a CEMS, you must indicate which data are CEMS data during warmup, startup, and shutdown.

(b) The results of the initial performance stack tests for eight pollutants or parameters (use appropriate units as specified in Table 2 to Subpart VVVV):

(1) Dioxins/furans.

(2) Cadmium.

(3) Lead.

(4) Mercury.

(5) Opacity.

(6) Particulate matter.

(7) Hydrogen chloride.

(8) Fugitive ash.

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

(d) The initial performance evaluation of your continuous emissions monitoring systems. Use the applicable performance specifications in appendix B of this part in conducting the evaluation.

(e) The maximum demonstrated load of your municipal waste combustor and the maximum demonstrated temperature of the flue gases at the inlet

of the particulate matter control device. Use values established during your initial stack test for dioxins/furans emissions and include supporting calculations.

(f) If your municipal waste combustor uses activated carbon to control dioxins/furans or mercury emissions, the average carbon mass feed rates that you recorded during the stack tests for dioxins/furans and mercury emissions. Include supporting calculations as specified in § 60.6050(a)(1) and (2).

(g) If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, documentation of the relationship between oxygen and carbon dioxide, as specified in § 60.5930.

§ 60.6085 When must I submit the annual report?

Submit the annual report no later than February 1 of each year that follows the calendar year in which you collected the data. If you have an operating permit for any unit under title V of the Clean Air Act (CAA), you must submit semiannual reports. Parts 70 and 71 of this chapter contain program requirements for permits.

§ 60.6090 What must I include in my annual report?

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

(a) A list of the results achieved during the annual stack test, using appropriate units, for eight pollutants, as recorded under § 60.6040(a):

(1) Dioxins/furans.

(2) Cadmium.

(3) Lead.

(4) Mercury.

(5) Particulate matter.

(6) Opacity.

(7) Hydrogen chloride.

(8) Fugitive ash.

(b) List of the highest average levels recorded, in the appropriate units for the following pollutants or parameters:

(1) Sulfur dioxide emissions.

(2) Nitrogen oxides emissions.

(3) Carbon monoxide emissions.

(4) Load level of the municipal waste combustor.

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

(6) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, hydrogen chloride, or dioxins/furans emissions instead of conducting performance testing:

(i) Particulate matter emissions.

(ii) Cadmium emissions.

(iii) Lead emissions.

- (iv) Mercury emissions.
- (v) Hydrogen chloride emissions.
- (vi) Dioxins/furans emissions.

(c) For continuously monitored pollutants identified in paragraphs (b)(1) through (3) and (b)(6) of this section, a list of the block averages recorded during all operations for the reporting year, identifying measurements recorded during periods of warmup, startup, and shutdown as defined in this subpart.

(d) The highest 6-minute opacity level measured. Base the value on all 6-minute average opacity levels recorded by your continuous opacity monitoring system (§ 60.6045(a)(1)).

(e) The total number of hours per calendar quarter and hours per calendar year that you did not obtain valid data for the following pollutants or parameters. For each continuously monitored pollutant or parameter, the hours of valid emissions data per calendar quarter and per calendar year expressed as a percent of the hours per calendar quarter or year that the municipal waste combustor was operating and combusting municipal solid waste. Include data on:

- (1) Sulfur dioxide emissions.
- (2) Nitrogen oxides emissions.
- (3) Carbon monoxide emissions.
- (4) Load level of the municipal waste combustor.

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

(6) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, hydrogen chloride, or dioxins/furans emissions instead of conducting performance testing:

- (i) Particulate matter emissions.
- (ii) Cadmium emissions.
- (iii) Lead emissions.
- (iv) Mercury emissions.
- (v) Hydrogen chloride emissions.
- (vi) Dioxins/furans emissions.

(7) If you elect to use continuous automated sampling systems for dioxins/furans or mercury, the total number of hours per calendar quarter and hours per calendar year that the sampling systems were not operating or were not collecting a valid sample. Include the number of hours during which the continuous automated sampling system was operating and collecting a valid sample as a percent of hours per calendar quarter or year that the municipal waste combustor was operating and combusting municipal solid waste.

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

- (1) Sulfur dioxide emissions.
- (2) Nitrogen oxides emissions.
- (3) Carbon monoxide emissions.
- (4) Load level of the municipal waste combustor.

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

(6) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, hydrogen chloride, or dioxins/furans emissions instead of conducting performance testing:

- (i) Particulate matter emissions.
- (ii) Cadmium emissions.
- (iii) Lead emissions.
- (iv) Mercury emissions.
- (v) Hydrogen chloride emissions.
- (vi) Dioxins/furans emissions.

(7) If you elect to use continuous automated sampling systems for dioxins/furans or mercury, the total number of hours that the data for mercury and dioxins/furans were excluded from the calculation of average emission concentrations or parameters.

(g) A summary of the data in paragraphs (a) through (f), excluding (c), of this section from the year preceding the reporting year which gives the Administrator a summary of the performance of the municipal waste combustor over a 2-year period.

(h) A summary of any emission or parameter level, including the information specified in paragraphs (a) through (g) of this section, that did not meet the limits specified in this subpart.

(i) A notice of your intent to begin a reduced stack testing schedule for dioxins/furans emissions during the following calendar year, if you are eligible for alternative scheduling (§ 60.5980(a) or (b)).

(j) A notice of your intent to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels to similarly designed and equipped units on site. (§ 60.5980(c)).

(k) If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, documentation of the relationship between oxygen and carbon dioxide, as specified in § 60.5930.

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

§ 60.6095 What must I do if I am out of compliance with the requirements of this subpart?

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

§ 60.6100 If a semiannual report is required, when must I submit it?

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

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

§ 60.6105 What must I include in the semiannual out-of-compliance reports?

You must include all of the following items in the semiannual report:

(a) For any of the pollutants or parameters listed in paragraphs (a)(1)–(8) of this section that exceeded the limits specified in this subpart, include the calendar date they exceeded the limits, the reasons for exceeding the limits, and your corrective actions. You must also include the averaged and recorded data for that date:

- (1) Concentration of sulfur dioxide emissions.
- (2) Concentration of nitrogen oxides emissions.
- (3) Concentration of carbon monoxide emissions.
- (4) Load level of your municipal waste combustor.
- (5) Temperature of the flue gases at the inlet of your particulate matter air pollution control device.

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

(7) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing:

- (i) Concentration of particulate matter emissions.
- (ii) Concentration of cadmium emissions.
- (iii) Concentration of lead emissions.
- (iv) Concentration of mercury emissions.
- (v) Concentration of hydrogen chloride emissions.

(8) If you elect to use a continuous automated sampling system to monitor mercury or dioxins/furans instead of conducting performance testing, the integrated 24-hour mercury concentrations (or percent reductions) or the integrated 2-week dioxins/furans concentration.

(b) If the results of your annual stack tests (as recorded in § 60.6040(a)) show emissions above the limits specified in Table 2 to Subpart VVVV for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash, include a

copy of the test report that documents the emission levels and your corrective actions. The semiannual report shall contain a statement indicating that pollutant levels were exceeded during the performance test and list which pollutant limits were exceeded and a copy of the performance test is no longer required.

(c) For municipal waste combustors that apply activated carbon to control dioxins/furans or mercury emissions, include documentation of all dates when the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) are below the levels established during the most recent mercury and dioxins/furans stack test (as specified in § 60.6050(a)). Include four items:

(1) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation.

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

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

(4) The calendar date.

(d) If you elect to install a continuous emission monitoring system for cadmium, lead, mercury, or hydrogen chloride, or you elect to install a continuous automated sampling system for dioxins/furans or mercury, submit information concerning all out-of-control periods for each continuous emission monitoring system or each continuous automated sampling system, including start and end dates and hours and descriptions of corrective actions taken.

§ 60.6110 Can reporting dates be changed?

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

(b) See § 60.19(c) for procedures to seek approval to change your reporting date.

Air Curtain Incinerators That Burn 100 Percent Wood Waste, Clean Lumber, and/or Yard Waste

§ 60.6115 What is an air curtain incinerator?

An air curtain incinerator operates by forcefully projecting a curtain of air

across an open chamber or pit in which combustion occurs. Incinerators of that type can be constructed above or below ground and with or without refractory walls and floor.

§ 60.6120 What is yard waste?

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

(a) Construction, renovation, and demolition wastes that are exempt from the definition of “municipal solid waste” in § 60.6145.

(b) Clean wood that is exempt from the definition of “municipal solid waste” in § 60.6145.

§ 60.6125 What are the emission limits for air curtain incinerators that burn 100 percent wood waste, clean lumber, and/or yard waste?

If your air curtain incinerator with a capacity to combust greater than 250 tons per day of municipal solid waste combusts a fuel feed stream of 100 percent wood waste, 100 percent clean lumber, 100 percent yard waste, or a 100 percent mixture of only wood waste, clean lumber, and/or yard waste, and no other municipal solid waste materials, you must meet only the emission limits in this section.

(a) Within 60 days after your air curtain incinerator reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup, you must meet two limits:

(1) The opacity limit is 10 percent (6-minute average) except as provided in paragraph (a)(2) of this section.

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

§ 60.6130 How must I monitor opacity for air curtain incinerators that burn 100 percent wood waste, clean lumber, and/or yard waste?

(a) Use the procedures specified in to Subpart VVVV to determine compliance with the opacity limit for air curtain incinerators under § 60.6125.

(b) Conduct an initial test for opacity as specified in § 60.8 of subpart A of this part.

(c) After the initial test for opacity, conduct annual tests (no less than 9 calendar months and no more than 15 calendar months following the previous test). You must complete five performance tests in each 5-year calendar period.

§ 60.6135 What are the recordkeeping and reporting requirements for air curtain incinerators that burn 100 percent wood waste, clean lumber, and/or yard waste?

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

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

(2) Your planned initial startup date.

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

(4) The capacity of your incinerator, including supporting capacity calculations, as specified in § 60.6015.

(b) Keep records of results of the initial opacity performance test and all subsequent opacity performance tests onsite in either paper copy or electronic format unless the Administrator approves another format.

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

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

(e) Submit the results (each 6-minute average) of the initial opacity performance test and all subsequent annual opacity performance tests by February 1 of the year following the year of the opacity emission test.

(f) Submit reports in either paper copy or electronic format on or before the applicable submittal date.

(g) If the Administrator agrees, you may change the annual reporting dates (see § 60.19(c)).

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

Equations

§ 60.6140 What equations must I use?

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

Equation 1 to Paragraph (a)

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

Where:

$C_{7\%}$ = concentration corrected to 7 percent oxygen.

C_{unc} = uncorrected pollutant concentration.

CO_2 = concentration of oxygen (percent).

(b) *Quarterly carbon usage.* If you use activated carbon to comply with the

dioxins/furans or mercury limits, calculate the required quarterly usage of carbon using equation 2 of this section

for facility basis or equation 3 of this section for unit basis:

(1) Facility basis.

Equation 2 to Paragraph (b)(1)

$$C = \sum_{i=1}^n f_i * h_i \text{ (Eq. 2)}$$

Where:

C = required quarterly carbon usage for the facility in kilograms (or pounds).

f_i = required carbon feed rate for the municipal waste combustor in kilograms (or pounds) per hour. That is the average carbon feed rate during the most recent mercury or dioxins/furans stack tests (whichever has a higher feed rate).

h_i = number of hours the municipal waste combustor was in operation during the calendar quarter (hours).

n = number of municipal waste combustors, i, located at your plant.

(2) Unit basis.

Equation 3 to Paragraph (b)(2)

$$C = f * h \text{ (Eq. 3)}$$

Where:

C = required quarterly carbon usage for the unit in kilograms (or pounds).

f = required carbon feed rate for the municipal waste combustor in kilograms (or pounds) per hour. That is the average

carbon feed rate during the most recent mercury or dioxins/furans stack tests (whichever has a higher feed rate).

h = number of hours the municipal waste combustor was in operation during the calendar quarter (hours).

(c) *Percent Reduction*. If you opt to comply with the alternative percent reduction standards for hydrogen chloride, mercury or sulfur dioxide, use the following equation to calculate the percent reduction:

Equation 4 to Paragraph (c)

$$\%P_{(HCl, Hg, SO_2)} = (E_i - E_o) / E_i * 100 \text{ (Eq. 4)}$$

Where:

$\%P_{(HCl, Hg, SO_2)}$ = percent reduction of pollutant being measured, either hydrogen chloride, mercury or sulfur dioxide.

E_i = emission concentration of measured pollutant at inlet to the applicable control device, corrected to 7 percent oxygen (dry basis).

E_o = emission concentration of measured pollutant at the outlet of the applicable control device, corrected to 7 percent oxygen (dry basis).

Definitions

§ 60.6145 What definitions apply to this subpart?

Terms used but not defined in this section are defined in the CAA and in subparts A and B of this part.

Administrator means:

(1) For approved and effective state plans, the Director of the state air pollution control agency, or employee of the state air pollution control agency that is delegated the authority to perform the specified task;

(2) For federal plans, the Administrator of the EPA, an employee of the EPA, the Director of the state air pollution control agency, or employee of the state air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task; and

(3) For NSPS, the Administrator of the EPA, an employee of the EPA, the Director of the state air pollution control agency, or employee of the state air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task.

Air curtain incinerator means an incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which burning occurs. Incinerators of that type can be constructed above or below ground and

with or without refractory walls and floor.

Batch municipal waste combustor means a municipal waste combustor designed so it cannot combust municipal solid waste continuously 24 hours per day because the design does not allow waste to be fed to the unit or ash to be removed during combustion.

Bubbling fluidized bed combustor means a fluidized bed combustor in which the majority of the bed material remains in a fluidized state in the primary combustion zone.

Calendar quarter means a consecutive 3-month period (nonoverlapping) beginning on January 1, April 1, July 1, and October 1.

Calendar year means the period including 365 days starting January 1 and ending on December 31.

CEMS means continuous emissions monitoring system.

CEMS data during warmup, startup, and shutdown means CEMS data collected during periods of operation defined within this subpart as warmup, startup or shutdown.

Chief facility operator means the person in direct charge and control of the operation of a municipal waste combustor and who is responsible for daily onsite supervision, technical direction, management, and overall performance of the facility.

Circulating fluidized bed combustor means a fluidized bed combustor in which the majority of the fluidized bed material is carried out of the primary combustion zone and is transported back to the primary zone through a recirculation loop.

Clean wood means untreated wood or untreated wood products including clean or untreated lumber (as defined in this subpart), tree stumps (whole or chipped), and tree limbs (whole or chipped). Clean wood does not include yard waste, which is defined elsewhere

in this section, wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or construction, renovation, and demolition wastes (including but not limited to railroad ties and telephone poles), which are exempt from the definition of municipal solid waste in this section.

Cofired combustor means a unit combusting municipal solid waste with nonmunicipal solid waste fuel (e.g., coal, industrial process waste) and subject to a federally enforceable permit limiting the unit to combusting a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal solid waste as measured on a calendar quarter basis.

Continuous automated sampling system means the total equipment and procedures for automated sample collection and sample recovery/analysis to determine a pollutant concentration or emission rate by collecting a single or multiple integrated sample(s) of the pollutant (or diluent gas) for subsequent on- or off-site analysis; integrated sample(s) collected are representative of the emissions for the sample time as specified by the applicable requirement.

Continuous emission monitoring system means a monitoring system that continuously measures the emissions of a pollutant from an affected facility.

Digital camera opacity technique conditions mean the following four conditions that must be followed if ASTM D7520-16, "Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere" is used as an alternative to EPA Method 9:

(1) During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520-16, you or the DCOT

vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).

(2) You must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520–16.

(3) You must follow the record keeping procedures outlined in 40 CFR 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.

(4) You or the DCOT vendor must have a minimum of 4 independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of anyone reading and the average error must not exceed 7.5 percent opacity.

Dioxins/furans mean tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans. For the purposes of this subpart, dioxins/furans emission limits are expressed on a total mass basis.

EPA means the Administrator of the U.S. EPA or employee of the U.S. EPA who is delegated to perform the specified task.

Federally enforceable means all limitations and conditions that are enforceable by EPA including the requirements of 40 CFR part 60, 40 CFR part 61, and 40 CFR part 63, requirements within any applicable state implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.165 and 40 CFR 51.166.

First half of the calendar year means the period starting on January 1 and ending on June 30 in any year.

Four-hour block average or 4-hour block average means the average of all hourly emission concentrations when the affected facility is operating and combusting municipal solid waste measured over 4-hour periods from:

- (1) 12:00 midnight to 4:00 a.m.
- (2) 4:00 a.m. to 8:00 a.m.
- (3) 8:00 a.m. to 12:00 noon.
- (4) 12:00 noon to 4:00 p.m.
- (5) 4:00 p.m. to 8:00 p.m.
- (6) 8:00 p.m. to 12:00 midnight.

Mass burn refractory municipal waste combustor means a field-erected combustor that combusts municipal solid waste in a refractory wall furnace. Unless otherwise specified, this includes combustors with a cylindrical rotary refractory wall furnace.

Mass burn rotary waterwall municipal waste combustor means a field-erected combustor that combusts municipal solid waste in a cylindrical rotary waterwall furnace or on a tumbling-tile grate.

Mass burn waterwall municipal waste combustor means a field-erected combustor that combusts municipal solid waste in a waterwall furnace.

Materials separation plan means a plan that identifies both a goal and an approach for separating certain components of municipal solid waste for a given service area in order to make the separated materials available for recycling. A materials separation plan may include elements such as dropoff facilities, buy-back or deposit-return incentives, curbside pickup programs, or centralized mechanical separation systems. A materials separation plan may include different goals or approaches for different subareas in the service area, and may include no materials separation activities for certain subareas or, if warranted, an entire service area.

Maximum demonstrated municipal waste combustor load means the highest 4-hour arithmetic average municipal waste combustor load achieved during four consecutive hours during the most recent dioxins/furans performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified under § 60.52b.

Maximum demonstrated particulate matter control device temperature means the highest 4-hour arithmetic average flue gas temperature measured at the particulate matter control device inlet during four consecutive hours during the most recent dioxins/furans performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified under § 60.52b.

Modification or modified municipal waste combustor means a municipal waste combustor you have changed after September 10, 2026 and that meets one of two criteria:

(1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of construction and installation the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs.

(2) Any physical change in the municipal waste combustor or change in the method of operating the municipal waste combustor that increases the amount of any air pollutant emitted by the unit for which standards have been established under section 129 or section

111 of the CAA. Increases in the amount of any air pollutant emitted by the municipal waste combustor are determined when the municipal waste combustor operates at 100 percent of its physical load capability and are measured downstream of all air pollution control devices. Load restrictions based on permits or other nonphysical operational restrictions cannot be considered in the determination.

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

Modular starved-air municipal waste combustor means a combustor that combusts municipal solid waste, is not field-erected, and has multiple combustion chambers in which the primary combustion chamber is designed to operate at substoichiometric conditions.

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

- (1) Yard waste;
- (2) Refuse-derived fuel; and
- (3) Motor vehicle maintenance materials limited to vehicle batteries and tires except as specified in § 60.5700(d).

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

(1) Municipal waste combustors do not include pyrolysis or combustion units located at a plastics or rubber recycling unit as specified under Applicability (§ 60.5700(h) and (i)). Municipal waste combustors also do not include cement kilns firing municipal solid waste as specified under Applicability (§ 60.5700(j)). Municipal waste combustors also do not include internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.

(2) The boundaries of a municipal waste combustor are defined as follows. The municipal waste combustor includes, but is not limited to, the municipal solid waste fuel feed system, grate system, flue gas system, bottom ash system, and the combustor water system. The municipal waste combustor boundary starts at the municipal solid waste pit or hopper and extends through three areas:

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

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

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

(3) The municipal waste combustor does not include air pollution control equipment, the stack, water treatment equipment, or the turbine-generator set.

Municipal waste combustor capacity means the maximum charging rate of a municipal waste combustor expressed in tons per day of municipal solid waste combusted, calculated according to the procedures under § 60.6015. Section 60.6015 includes procedures for determining municipal waste combustor

capacity for continuous and batch feed municipal waste combustors.

Municipal waste combustor load means the steam load of the municipal waste combustor measured as specified in § 60.5995.

Particulate matter means total particulate matter emitted from municipal waste combustors as measured using EPA Reference Method 5 (see § 60.5975)

Plastics/rubber recycling unit means an integrated processing unit for which plastics, rubber, or rubber tires are the only feed materials (incidental contaminants may be in the feed materials). The feed materials are processed into a chemical plant feedstock or petroleum refinery feedstock, where the feedstock is marketed to and used by a chemical plant or petroleum refinery as input feedstock. The following three criteria further define a plastics/rubber recycling unit:

(1) Each calendar quarter, the combined weight of the chemical plant feedstock and petroleum refinery feedstock that a plastics/rubber recycling unit produces must be more than 70 percent of the combined weight of the plastics, rubber, and rubber tires that the plastics/rubber recycling unit processes.

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

(3) The plastics, rubber, and rubber tires fed to the plastics/rubber recycling unit may contain incidental contaminants (*e.g.*, paper labels on plastic bottles, metal rings on plastic bottle caps).

Pulverized coal/refuse-derived fuel mixed fuel-fired combustor means a combustor that fires coal and refuse-derived fuel simultaneously, in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the unit where it is fired in suspension. This includes both conventional pulverized coal and micropulverized coal.

Pyrolysis/combustion unit means a unit that produces gases, liquids, or solids by heating municipal solid waste. The gases, liquids, or solids produced are combusted and the emissions vented to the atmosphere.

Reconstruction means rebuilding a municipal waste combustor for which the reconstruction commenced after September 10, 2026 and the cumulative

costs of the construction over the life of the unit exceed 50 percent of the original cost of construction and installation of the unit (not including any cost of land purchased in connection with such construction or installation) updated to current costs (current dollars).

Refractory unit or refractory wall furnace means a combustion unit that has no energy recovery (*e.g.*, via a waterwall) in the furnace (*i.e.*, radiant heat transfer section) of the combustor.

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

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

(2) Pelletized refuse-derived fuel.

Refuse-derived fuel stoker means a steam generating unit that combusts refuse-derived fuel in a semi suspension firing mode using air-fed distributors.

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

Second half of the calendar year means the period that starting July 1 and ending on December 31 in any year.

Shift supervisor means the person who is in direct charge and control of operating a municipal waste combustor and who is responsible for onsite supervision, technical direction, management, and overall performance of the municipal waste combustor during an assigned shift.

Shutdown means the period of time following cessation of charging waste to the combustion grate prior to entering a period where the municipal waste combustor is not operating. Shutdown may be claimed for up to three hours of operation per occurrence.

Spreader stoker coal/refuse-derived fuel mixed fuel-fired combustor means a combustor that combusts coal and refuse-derived fuel simultaneously, in which coal is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above.

Combustion takes place both in suspension and on the grate.

Standard conditions means a temperature of 20 °C and a pressure of 101.3 kilopascals.

Startup means the period of time after warmup when waste is introduced to the combustion grate but prior to steady state operation. Startup may be claimed for up to three hours of operation per occurrence.

Total mass dioxins/furans or total mass means the total mass of tetra-through octa- chlorinated dibenzo-p-dioxins and dibenzofurans as determined using EPA Reference Method 23 and the procedures specified in § 60.5975

Tumbling-tile means a grate tile hinged at one end and attached to a ram at the other end. When the ram extends, the grate tile rotates around the hinged end.

Twenty-four hour daily average or 24-hour daily average means either the arithmetic mean or geometric mean (as specified) of all hourly emission concentrations when the affected facility operates and combusts municipal solid waste measured over a 24-hour period between 12:00 midnight and the following midnight.

Untreated lumber or clean lumber means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Untreated lumber does not include wood products that have been painted, pigment-stained, or “pressure-treated”. Pressure-treating compounds include, but are not limited to, chromate copper arsenate, pentachlorophenol, and creosote.

Warmup means the period of time during the first hours of a municipal waste combustor operation from a cold

start until waste is fed to the combustor and has no time constraints. No waste is introduced to the combustion grate during warmup.

Waterwall furnace means a combustion unit having energy (heat) recovery in the furnace (*i.e.*, radiant heat transfer section) of the combustor.

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

(1) Construction, renovation, and demolition wastes that are exempt from the definition of “municipal solid waste” in this section.

(2) Clean wood that is exempt from the definition of “municipal solid waste” in this section.

TABLE 1 TO SUBPART VVVV—LARGE MUNICIPAL WASTE COMBUSTOR CARBON MONOXIDE LIMITS

[Parts per million by volume]

Municipal waste combustor technology	New large municipal waste combustors	
	Carbon monoxide emission limit (parts per million by volume) ^a	Averaging time (hours) ^b
Mass burn waterwall	76	4
Mass burn refractory	76	4
Mass burn rotary waterwall	76	24
Modular starved air	50	4
Modular excess air	50	4
Refuse-derived fuel stoker	100	24
Bubbling fluidized bed combustor	100	4
Circulating fluidized bed combustor	100	4
Pulverized coal/refuse-derived fuel mixed fuel-fired combustor	100	4
Spreader stoker coal/refuse-derived fuel mixed fuel-fired combustor	100	24

^a Measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen (dry basis). CEMS data during warmup, startup, and shutdown, as defined in this subpart, are not corrected to 7 percent oxygen, and are used as measured. The averaging times are specified in greater detail in § 60.5940(b).

^b Averaging times are 4-hour or 24-hour block arithmetic averages.

TABLE 2 TO SUBPART VVVV—EMISSION LIMITATIONS FOR NEW LARGE MUNICIPAL WASTE COMBUSTORS

For the air pollutant	If your affected facility is a new large municipal waste combustor, you must meet this emission limit, corrected to 7 percent oxygen ^a
Particulate matter	5.1 mg/dscm.
Opacity	10 percent opacity (6-minute block average).
Cadmium	2.3 ug/dscm.
Lead	23 ug/dscm.
Mercury	32 ug/dscm or 85 percent reduction by weight.
Sulfur dioxide	14 parts per million by volume dry basis or 79 percent reduction by weight or volume (daily 24-hour geometric average).
Hydrogen chloride	7.2 parts per million by volume dry basis or 98 percent reduction by weight or volume.
Dioxins/furans	11 nanograms per dry standard cubic meter (total mass).
Nitrogen oxides	50 parts per million by volume dry basis (daily 24-hour arithmetic average).

^a Measured at the combustor outlet in conjunction with a measurement of oxygen concentration. CEMS data during warmup, startup, and shutdown, as defined in this subpart, are not corrected to 7 percent oxygen, and are used as measured. The averaging times are specified in greater detail in § 60.5940.

TABLE 3 TO SUBPART VVVV OF PART 60—REQUIREMENTS FOR CONTINUOUS EMISSION MONITORING SYSTEMS (CEMS)

For the following pollutants	Use the following span values for your CEMS	Use the following performance specifications for your CEMS	During each relative accuracy test run, use the following methods to collect concurrent data
1. Particulate Matter		For operation and correlation test, P.S. 11 in appendix B of this part and procedure 2 of appendix F to this part. For quarterly accuracy determinations, daily calibration drift tests, and each response correlation audit or relative response audit, procedure 2 of appendix F to this part.	Follow the test methods in Table 4 to Subpart VVVV.
2. Nitrogen Oxides	Control device outlet: 125 percent of the maximum estimated hourly nitrogen oxides emissions of the municipal waste combustor.	For operation, P.S. 2 in appendix B of this part and procedure 1 of appendix F of this part. For relative accuracy, P.S. 2 in appendix B of this part and procedure 1 of appendix F of this part. For quarterly accuracy determinations and daily calibration drift tests, procedure 1 in appendix F of this part.	Method 7, 7A, 7C, 7D, or 7E in appendix A–4 to part 60 of this chapter.
3. Sulfur Dioxide	Control device outlet: 50 percent of the maximum estimated hourly sulfur dioxide emissions of the municipal waste combustor.	For operation, P.S. 2 in appendix B of this part and procedure 1 of appendix F of this part. For relative accuracy audit, P.S. 2 in appendix B of this part and procedure 1 of appendix F of this part. For quarterly accuracy determinations and daily calibration drift tests, procedure 1 in appendix F of this part.	Method 6, 6A, or 6C in appendix A–4 to part 60 of this chapter.
4. Carbon Monoxide	125 percent of the maximum estimated hourly carbon with monoxide emissions of the municipal waste combustor.	For operation, P.S. 4A in appendix B of this part and procedure 1 of appendix F of this part. For relative accuracy audit, P.S. 4A in appendix B of this part and procedure 1 of appendix F of this part. For quarterly accuracy determinations and daily calibration drift tests, procedure 1 in appendix F of this part.	Method 10, 10A, or 10B in appendix A–4 to part 60 of this chapter.
5. Oxygen or Carbon Dioxide.	25 percent oxygen or 20 percent carbon dioxide	P.S. 3 in appendix B of this part	Method 3A, or 3B in appendix A–2 to part 60 of this chapter, or, as an alternative for oxygen or carbon dioxide correction, the manual method portion of ASME PTC–19–10–1981—part 10.
6. Mercury	Follow the approved site-specific monitoring plan	For operation, P.S. 12A in appendix B of this part and procedure 5 of appendix F of this part, or the approved site-specific monitoring plan. For relative accuracy audit, daily calibration, weekly system integrity check, quarterly audit, procedure 5 of appendix F of this part.	Follow the test methods in Table 4 to Subpart VVVV.
7. Hydrogen chloride	Follow the approved site-specific monitoring plan	For operation, P.S. 18 in appendix B of this part and procedure 6 of appendix F of this part or the approved site-specific monitoring plan. For relative accuracy audit, daily calibration, quarterly audit, and other applicable quality assurance/quality control checks procedure 6 of appendix F of this part.	Follow the test methods in Table 4 to Subpart VVVV, except you may also use Methods 320 or 321 of appendix A to part 63.
8. Cadmium or Lead	Follow the approved site-specific monitoring plan	For operation, the approved site-specific monitoring plan.	Follow the test methods in Table 4 to Subpart VVVV.

TABLE 4 TO SUBPART VVVV—PERFORMANCE TEST REQUIREMENTS FOR COMPLIANCE WITH EMISSIONS LIMITS UNDER § 60.5895

To determine compliance with the . . .	You must conduct a performance test to . . .	Using . . .
Particulate matter emission limits.	1. Select sampling ports location and the number of traverse points. 2. Determine oxygen and carbon dioxide concentrations of the stack gas. 3. Measure the particulate matter emission concentration to determine compliance with the particulate matter emission limit.	Method 1 in appendix A–1 to part 60 of this chapter. Method 3A or 3B in appendix A–2 to part 60 of this chapter, or as an alternative the manual method portion of ASME PTC–19–10–1981—part 10. Method 5 in appendix A–3 to part 60 of this chapter. Collect a minimum sample volume of 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160°C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run.
Opacity emission limits	Determine compliance with the opacity limit in Table 2 to Subpart VVVV.	Method 9 of appendix A–4 of part 60 to this chapter, except as provided under § 60.11(e) of subpart A of this part, or as an alternative ASTM D7520–16 provided the digital camera opacity technique conditions, as defined in this subpart, are met.
Cadmium or lead emission limits.	1. Select sampling ports location and the number of traverse points. 2. Determine oxygen and carbon dioxide concentrations of the stack gas for flue gas analysis.	Method 1 in appendix A–1 to part 60 of this chapter. Method 3A or 3B in appendix A–2 to part 60 of this chapter, or as an alternative the manual method portion of ASME PTC–19–10–1981—part 10.

TABLE 4 TO SUBPART VVVV—PERFORMANCE TEST REQUIREMENTS FOR COMPLIANCE WITH EMISSIONS LIMITS UNDER § 60.5895—Continued

To determine compliance with the . . .	You must conduct a performance test to . . .	Using . . .
Mercury emission limits	3. Measure the cadmium or lead emission concentration to determine compliance with the emission limits. 1. Select sampling ports location and the number of traverse points. 2. Determine oxygen and carbon dioxide concentrations of the stack gas for flue gas analysis. 3. Measure the mercury emission concentration to determine compliance with the emission limits.	Method 29 in appendix A–8 to part 60 of this chapter. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for cadmium and lead required. Method 1 in appendix A–1 to part 60 of this chapter. Method 3A or 3B in appendix A–2 to part 60 of this chapter, or as an alternative the manual method portion of ASME PTC–19–10–1981—part 10. Method 29 in appendix A–8 to part 60 of this chapter or as an alternative ASTM D6784–24. Collect a minimum sample volume of 1.7 cubic meters. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for mercury required.
Sulfur dioxide emission limits	Calculate the 24-hr daily geometric average sulfur dioxide emission concentration.	Method 19, section 12.4.3, in appendix A–7 to part 60 of this chapter.
Hydrogen chloride emission limits.	Measure the hydrogen chloride emission concentration	Method 26 or 26A in appendix A–8 of part 60 to this chapter, as applicable. The minimum sampling time shall be 1 hour. An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 26 or 26A test run for hydrogen chloride.
Dioxins/furans emission limits.	1. Select sampling ports location and the number of traverse points. 2. Determine oxygen and carbon dioxide concentrations of the stack gas for flue gas analysis. 3. Measure the dioxins/furans emission concentration to determine compliance with the emission limits.	Method 1 in appendix A–1 to part 60 of this chapter.
Nitrogen oxides emission limits.	Determine the daily arithmetic average nitrogen oxides emission concentration.	Method 3A or 3B in appendix A–2 to part 60 of this chapter, or as an alternative the manual method portion of ASME PTC–19–10–1981—part 10.
Fugitive ash emission limits	Measure fugitive ash emissions	Method 23 in appendix A–7 to part 60 of this chapter. The minimum sampling time shall be 4 hours. An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 23 test run for dioxins/furans.
Opacity limit for air curtain incinerators under § 60.6125.	Determine compliance with the opacity limit in § 60.6125.	Method 19, section 12.4.1, in appendix A–7 to part 60 of this chapter.
		Method 22 in appendix A–7 to part 60 of this chapter. The minimum observation time shall be a series of three 1-hour observations. The observation period shall include times when the facility is transferring ash from the municipal waste combustor to the area where ash is stored or loaded into containers or trucks.
		Method 9 of appendix A–4 of part 60 to this chapter, or as an alternative ASTM D7520–16 provided the digital camera opacity technique conditions, as defined in this subpart, are met.

■ 7. Add subpart WWWW consisting of §§ 60.6250 to 60.6685 to part 60 to read as follows:

Subpart WWWW—Emission Guidelines and Compliance Times for Large Municipal Waste Combustors Constructed on or Before January 23, 2024

Sec.

Introduction

60.6250 What is the purpose of this subpart?

60.6255 Am I affected by this subpart?

60.6260 Is a state plan required for all states?

60.6265 What must I include in my state plan?

60.6270 Is there an approval process for my state plan?

60.6275 What if my state plan is not approvable?

60.6280 Is there an approval process for a negative declaration letter?

60.6285 What compliance schedule must I include in my state plan?

60.6290 Are there any state plan requirements for this subpart that supersede the requirements specified in subpart B?

60.6295 Does this subpart directly affect municipal waste combustion unit owners and operators in my state?

Applicability of State Plans

60.6300 What municipal waste combustors must I address in my state plan?

60.6305 Are any large municipal waste combustors exempt from my state plan?

60.6310 What subcategories of large municipal waste combustors must I include in my state plan?

Use of Model Rule

60.6315 What is the “model rule” in this subpart?

60.6320 How does the model rule relate to the required elements of my state plan?

60.6325 What are the principal components of the model rule?

Model Rule—Increments or Progress

60.6330 What are my requirements for meeting increments of progress and achieving final compliance?

60.6335 When must I complete each increment of progress?

60.6340 What must I include in the notifications of achievement of my increments of progress?

- 60.6345 When must I submit the notifications of achievement of increments of progress?
- 60.6350 What if I do not meet an increment of progress?
- 60.6355 How do I comply with the increment of progress for submittal of a control plan?
- 60.6360 How do I comply with the increment of progress for awarding contracts?
- 60.6365 How do I comply with the increment of progress for initiating onsite construction?
- 60.6370 How do I comply with the increment of progress for completing onsite construction?
- 60.6375 How do I comply with the increment of progress for achieving final compliance?
- 60.6380 What must I do if I close my municipal waste combustion unit and then restart my municipal waste combustion unit?
- 60.6385 What must I do if I plan to permanently close my municipal waste combustion unit and not restart it?

Model Rule—Good Combustion Practices: Operator Training

- 60.6390 What types of training must I do?
- 60.6395 Who must complete the operator training course? By when?
- 60.6400 Who must complete the plant-specific training course?
- 60.6405 What plant-specific training must I provide?
- 60.6410 What information must I include in the plant-specific operating manual?
- 60.6415 Where must I keep the plant-specific operating manual?

Model Rule—Good Combustion Practices: Operator Certification

- 60.6420 What types of operator certification must the chief facility operator and shift supervisor obtain and by when must they obtain it?
- 60.6425 After the required date for operator certification, who may operate the municipal waste combustion unit?
- 60.6430 What if all the certified operators must be temporarily offsite?

Model Rule—Good Combustion Practices: Operating Requirements

- 60.6435 What are the operating practice requirements for my municipal waste combustion unit?
- 60.6440 What happens to the operating requirements during periods of startup, shutdown, and malfunction?

Model Rule—Emission Limits

- 60.6445 What pollutants are regulated by this subpart?
- 60.6450 What emission limits must I meet? By when?
- 60.6455 What happens to the emission limits during periods of startup, shutdown, and malfunction?

Model Rule—Continuous Emission Monitoring

- 60.6460 What types of continuous emission monitoring must I perform?

- 60.6465 What continuous emission monitoring systems must I install for gaseous pollutants?
- 60.6470 How are the data from the continuous emission monitoring systems used?
- 60.6475 How do I make sure my continuous emission monitoring systems are operating correctly?
- 60.6480 What is my schedule for evaluating continuous emission monitoring systems?
- 60.6485 What must I do if I choose to monitor carbon dioxide instead of oxygen as a diluent gas?
- 60.6490 What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems and is the data collection requirement enforceable?
- 60.6495 How do I convert my 1-hour arithmetic averages into appropriate averaging times and units?
- 60.6500 What is required for my continuous opacity monitoring system and how are the data used?
- 60.6505 What additional requirements must I meet for the operation of my continuous emission monitoring systems and continuous opacity monitoring system?
- 60.6510 What must I do if any of my continuous emission monitoring systems are temporarily unavailable to meet the data collection requirements?

Model Rule—Stack Testing

- 60.6515 What types of stack tests must I conduct?
- 60.6520 How are the stack test data used?
- 60.6525 What schedule must I follow for the stack testing?
- 60.6530 What test methods must I use to stack test?
- 60.6535 May I conduct stack testing less often?
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Model Rule—Other Monitoring Requirements

- 60.6545 Must I meet other requirements for continuous monitoring?
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Introduction

§ 60.6250 What is the purpose of this subpart?

This subpart establishes emission guidelines and compliance schedules for the control of emissions from existing large municipal waste combustors. The pollutants addressed by the emission guidelines are listed in Tables 2 and 3 to Subpart WWW. The emission guidelines are developed in accordance with sections 111(d) and 129 of the Clean Air Act (CAA) and subpart B of this part.

§ 60.6255 Am I affected by this subpart? What authorities does the EPA Administrator retain?

(a) If you are the Administrator of an air quality program in a state or United

States protectorate with one or more existing large municipal waste combustors that commenced construction on or before January 23, 2024, you must submit a state plan to the U.S. Environmental Protection Agency (EPA) that implements the emission guidelines contained in this subpart.

(b) You must submit the state plan to EPA by March 10, 2027.

(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 3 to Subpart WWWW or the limits specified in § 60.52b of subpart Eb of this part to EPA by March 10, 2027 for large municipal waste combustors that commenced construction after September 20, 1994, but no later than January 23, 2024, or commenced modification or reconstruction after June 19, 1996 but no later than September 10, 2026.

(d) The following authorities are retained by EPA and not transferred to the state upon delegation of authority to the state to implement an approved state plan:

(1) Approval of exemption claims in § 60.6305(a), (b), (c), (d), and (g);

(2) Approval of major alternatives to test methods;

(3) Approval of major alternatives to monitoring;

(4) Waiver of recordkeeping;

(5) Performance test and data reduction waivers under § 60.8(b);

(6) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

§ 60.6260 Is a state plan required for all states?

No, you are not required to submit a state plan if there are no existing large municipal waste combustors in your state and you submit a negative declaration letter in place of the state plan.

§ 60.6265 What must I include in my state plan?

(a) Include nine items:

(1) Inventory of affected municipal waste combustors, including those that have ceased operation but have not been dismantled.

(2) Inventory of emissions from affected municipal waste combustors in your state.

(3) Compliance schedules for each affected municipal waste combustor.

(4) Good combustion practices and emission limits for affected municipal waste combustors that are at least as protective as the emission guidelines contained in this subpart.

(5) Stack testing, continuous emission monitoring, recordkeeping, and reporting requirements.

(6) Certification that the hearing on the state plan 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.

(7) Provision for state progress reports to EPA.

(8) Identification of enforceable state mechanisms that you selected for implementing the emission guidelines of this subpart.

(9) Demonstration of your state's legal authority to carry out the CAA sections 111(d) and 129 state plan.

(b) Your state plan can deviate from the format and content of the emission guidelines contained in this subpart. However, if your state plan does deviate, you must demonstrate that your state plan is as protective as the emission guidelines contained in this subpart. Your state plan must address regulatory applicability, increments of progress for retrofit, operator training and certification, operating practice, emission limits, continuous emission monitoring, stack testing, recordkeeping, reporting, and air curtain incinerator requirements.

(c) For approval, your state plan must include the monitoring, recordkeeping and reporting requirements in § 60.6460 through § 60.6650 of this part, as applicable, except as provided for under § 60.24(b)(1) of subpart B of this part and paragraph (d) of this section.

(d) For approval, your state plan must include the alternative performance testing schedule for dioxins/furans specified in § 60.6535 of this section, as applicable, for those municipal waste combustors that achieve a dioxins/furans emission level less than or equal to 7 nanograms per dry standard cubic meter total mass, corrected to 7 percent oxygen.

(e) Follow the requirements of subpart B of this part in your state plan.

§ 60.6270 Is there an approval process for my state plan?

The EPA will review your state plan according to § 60.27.

§ 60.6275 What if my state plan is not approvable?

If you do not submit an approvable state plan (or a negative declaration letter), EPA will develop a federal plan, according to § 60.27 to implement the emission guidelines contained in this subpart. Owners and operators of municipal waste combustors not covered by an approved and currently

effective state plan must comply with the federal plan. The federal plan is an interim action and, by its own terms, will cease to apply when your state plan is approved and becomes effective.

§ 60.6280 Is there an approval process for a negative declaration letter?

No, the EPA has no formal review process for negative declaration letters. Once your negative declaration letter has been received, EPA will place a copy in the public docket and publish a notice in the **Federal Register**. If, at a later date, an existing large municipal waste combustor is identified in your state, the federal plan implementing the emission guidelines contained in this subpart will automatically apply to that municipal waste combustor until your state plan is approved.

§ 60.6285 What compliance schedule must I include in my state plan?

(a) Your state plan must include compliance schedules that require large municipal waste combustors to achieve final compliance or cease operation as expeditiously as practicable but not later than the earlier of two dates:

(1) [March 10, 2031.

(2) Within 1 year after the effective date of state plan approval, but no later than 3 years after the effective date of state plan approval, as specified in paragraphs (b) and (c) of this section.

(b) For compliance schedules longer than 1 year but less than 3 years after the effective date of state plan approval, or if a permit modification is required, more than 1 year but less than 3 years following the date of issuance of a revised construction or operation permit, state plans must include dates for enforceable increments of progress as specified in § 60.6340.

(c) For compliance schedules that allow designated facilities longer than 1 year but up to 3 years after the effective date of state plan approval to close, the state plan must require a closure agreement. The closure agreement must include the date of facility closure.

(d) The owner or operator of a municipal waste combustor who is planning an extensive emission control system upgrade may petition the Administrator for a longer compliance schedule than the schedule in paragraph (a)(1) of this section but must demonstrate to the satisfaction of the Administrator the need for the additional time. If approved, the compliance schedule may exceed the schedule in paragraph (a)(1) of this section, but cannot exceed March 10, 2031.

§ 60.6290 Are there any state plan requirements for this subpart that supersede the requirements specified in subpart B?

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

(a) *Option for case-by-case less stringent emission standards and longer compliance schedules.* State plans developed to implement this subpart must be as protective as the emission guidelines contained in this subpart. State plans must require all municipal waste combustors to comply no later than March 10, 2031. That requirement applies instead of the option for case-by-case less stringent emission standards and longer compliance schedules in § 60.24(e) and (f).

(b) *Increments of progress requirements.* A state plan that allows more than 1 year but less than 3 years following the date of issuance of a revised construction or operation permit, if a permit modification is required, or more than 1 year but less than 3 years following approval of the state plan, if a permit modification is not required, must include measurable and enforceable incremental steps of progress towards compliance. Suggested measurable and enforceable activities are specified in paragraphs (b)(1) through (b)(10) of this section. This requirement applies instead of the requirement of § 60.24(d) that would require a state plan to include all five increments of progress for all municipal waste combustors.

(1) Date for obtaining services of an architectural and engineering firm regarding the air pollution control device(s);

(2) Date for obtaining design drawings of the air pollution control device(s);

(3) Date for submittal of permit modifications, if necessary;

(4) Date for submittal of the final control plan to the Administrator [§ 60.21 (h)(1) of subpart B of this part.];

(5) Date for ordering the air pollution control device(s);

(6) Date for obtaining the major components of the air pollution control device(s);

(7) Date for initiation of site preparation for installation of the air pollution control device(s);

(8) Date for initiation of installation of the air pollution control device(s);

(9) Date for initial startup of the air pollution control device(s); and

(10) Date for initial performance test(s) of the air pollution control device(s).

(c) *Date of submittal of state plan.*

Each state in which a designated facility is located shall submit to EPA a plan to implement and enforce all provisions of this subpart no later than March 10, 2027. This requirement is in accordance with section 129(b)(2) of the Clean Air Act and applies instead of the schedule required in § 60.23(a)(1) of subpart B of this part.

§ 60.6295 Does this subpart directly affect municipal waste combustor owners and operators in my state?

(a) No, this subpart does not directly affect large municipal waste combustor owners and operators in your state. However, large municipal waste combustor owners and operators must comply with the state plan you develop to implement the emission guidelines contained in this subpart into their state plans by direct incorporation by reference. Others may include the model rule text directly in their state plan.

(b) All municipal waste combustors must be in compliance with the requirements established in this subpart by March 10, 2031, whether the municipal waste combustor is regulated under a state or federal plan.

APPLICABILITY OF STATE PLANS

§ 60.6300 What municipal waste combustors must I address in my state plan?

(a) Your state plan must address all existing large municipal waste combustors in your state that meet two criteria:

(1) The municipal waste combustor has the capacity to combust greater than 250 tons per day of municipal solid waste.

(2) The municipal waste combustor commenced construction on or before January 23, 2024.

(b) If an owner or operator of a municipal waste combustor makes changes that meet the definition of modification or reconstruction after September 10, 2026 for subpart VVVV of this part, the municipal waste combustor becomes subject to subpart VVVV of this part and the state plan no longer applies to that unit.

(c) If an owner or operator of a municipal waste combustor makes physical or operational changes to an existing municipal waste combustor primarily to comply with your state plan, subpart VVVV of this part (Standards of Performance for Large Municipal Waste Combustors) does not apply to that unit. Such changes do not constitute modifications or

reconstructions under subpart VVVV of this part.

(d) If an owner or operator of a municipal waste combustor meets the applicability requirements of this section, the unit is not subject to subparts Db or E of this part.

§ 60.6305 Are any large municipal waste combustors exempt from my state plan?

(a) *Small municipal waste combustors that combust less than 11 tons per day.* Units are exempt from your state plan if five requirements are met:

(1) The municipal waste combustor is subject to a federally enforceable permit limiting the amount of municipal solid waste combusted to less than 11 tons per day.

(2) You are notified by the owner or operator that the unit qualifies for the exemption.

(3) You receive from the owner or operator of the unit a copy of the federally enforceable permit.

(4) The owner or operator of the unit keeps daily records of the amount of municipal solid waste combusted.

(5) The owner or operator of the unit submits the notification and data required by (a)(2) and (3) of this section as a portable document format (PDF) file electronically according to § 60.6605(e).

(b) *Small power production units.* Units are exempt from your state plan if five requirements are met:

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

(2) The unit combusts homogeneous waste (such as automotive tires or used oil, but excluding refuse-derived fuel) to produce electricity.

(3) You are notified by the owner or operator that the unit qualifies for the exemption.

(4) You receive documentation from the owner or operator that the unit qualifies for the exemption.

(5) The owner or operator of the unit submits the notification and data required by (b)(3) and (4) of this section as a PDF file electronically according to § 60.6605(e).

(c) *Cogeneration units.* Units are exempt from your state plan if five requirements are met:

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

(2) The unit combusts homogeneous waste (such as automotive tires or used oil, but excluding refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes.

(3) You are notified by the owner or operator that the unit qualifies for the exemption.

(4) You receive documentation from the owner or operator that the unit qualifies for the exemption.

(5) The owner or operator of the unit submits the notification and data required by (c)(3) and (4) of this section as a PDF file electronically according to § 60.6605(e).

(d) *Municipal waste combustors that combust only tires.* Units are exempt from your state plan if four requirements are met:

(1) The municipal waste combustor combusts a single-item waste stream of tires.

(2) You are notified by the owner or operator that the unit qualifies for the exemption.

(3) You receive documentation from the owner or operator that the unit qualifies for the exemption.

(4) The owner or operator of the unit submits the notification and data required by (d)(2) and (3) of this section as a PDF file electronically according to § 60.6605(e).

(e) *Hazardous waste combustion units.* Units are exempt from your state plan if the units have received a permit under section 3005 of the Solid Waste Disposal Act.

(f) *Materials recovery units.* Units are exempt from your state plan if the units combust waste mainly to recover metals. Primary and secondary smelters may qualify for the exemption.

(g) *Co-fired units.* Units are exempt from your state plan if five requirements are met:

(1) The unit is a co-fired combustor as defined under § 60.6685 and has a federally enforceable permit limiting municipal solid waste combustion to 30 percent of the total fuel input by weight.

(2) You are notified by the owner or operator that the unit qualifies for the exemption.

(3) You receive from the owner or operator of the unit a copy of the federally enforceable permit.

(4) The owner or operator records the weights, each quarter, of municipal solid waste and of all other fuels combusted.

(5) The owner or operator of the unit submits the notification and data required by (g)(2) and (3) of this section as a PDF file electronically according to § 60.6605(e).

(h) *Plastics/rubber recycling units.* Units are exempt from your state plan if five requirements are met:

(1) The pyrolysis/combustion unit is an integrated part of a plastics/rubber recycling unit as defined under “Definitions” (§ 60.6685).

(2) The owner or operator of the unit records the weight, each quarter, of plastics, rubber, and rubber tires processed.

(3) The owner or operator of the unit records the weight, each quarter, of feed stocks produced and marketed from chemical plants and petroleum refineries.

(4) The owner or operator of the unit keeps the name and address of the purchaser of the feed stocks.

(5) The owner or operator of the unit submits a notification that the pyrolysis/combustion is not subject to this subpart as a PDF file electronically according to § 60.6605(e).

(i) *Units that combust fuels made from products of plastics/rubber recycling plants.* Units are exempt from your state plan if two requirements are met:

(1) The unit combusts gasoline, diesel fuel, jet fuel, fuel oils, residual oil, refinery gas, petroleum coke, liquified petroleum gas, propane, or butane produced by chemical plants or petroleum refineries that use feed stocks produced by plastics/rubber recycling units.

(2) The unit does not combust any other municipal solid waste.

(j) *Cement kilns.* Cement kilns that combust municipal solid waste are exempt from your state plan.

(k) *Air curtain incinerators.* If an air curtain incinerator (see § 60.6685 for definition) meets the capacity specifications in § 60.6300(a) and combusts a fuel stream composed of 100 percent wood waste, 100 percent clean lumber, 100 percent yard waste, or a 100 percent mixture of only wood waste, clean lumber, and/or yard waste, then the unit must only meet the opacity standard, testing procedures, and the reporting and recordkeeping requirements under “Model Rule—Air Curtain Incinerators That Burn 100 Percent Yard Waste” (§§ 60.6655 through 60.6675). If an air curtain incinerator meets the capacity specifications in § 60.6300(a) and combusts municipal solid waste other than 100 percent wood waste, 100 percent clean lumber, 100 percent yard waste, or a 100 percent mixture of only wood waste, clean lumber, and/or yard waste, the unit is subject to all requirements of this subpart.

§ 60.6310 What subcategories of large municipal waste combustors must I include in my state plan?

(a) This subpart specifies different requirements for different subcategories of municipal waste combustors. You must use those same subcategories in your state plan. Those subcategories are

based on the municipal waste combustor type as follows (see § 60.6685 for definitions):

- (1) Mass burn refractory.
- (2) Mass burn rotary waterwall.
- (3) Mass burn waterwall.
- (4) Modular starved air.
- (5) Modular excess air.
- (6) Refuse-derived fuel stoker.
- (7) Bubbling fluidized bed combustor.
- (8) Circulating fluidized bed combustor.

(9) Pulverized coal/refuse-derived fuel mixed fuel-fired combustor.

(10) Spreader stoker coal/refuse-derived fuel mixed fuel-fired combustor.

(b) The requirements for municipal waste combustors of all types are identical except that carbon monoxide emissions limits are set separately for mass burn, modular, and refuse-derived fuel combustor types (see Table 2 to Subpart WWW).

Use of Model Rule

§ 60.6315 What is the “model rule” in this subpart?

(a) The model rule is the portion of the emission guidelines (§§ 60.6330 through 60.6680) that addresses the regulatory requirements applicable to large municipal waste combustors. The model rule provides the requirements in a regulation format.

(b) In the model rule, “you” means the owner or operator of a large municipal waste combustor.

§ 60.6320 How does the model rule relate to the required elements of my state plan?

The model rule may be used to satisfy the state plan requirements specified in § 60.6265(a)(4) and (5). Alternative language may be used in your state plan, but only if you can demonstrate that the alternative language is as protective as the model rule.

§ 60.6325 What are the principal components of the model rule?

The model rule contains five major components:

- (a) Increments of progress toward compliance.
- (b) Good combustion practices:
 - (1) Operator training.
 - (2) Operator certification.
 - (3) Operating requirements.
- (c) Emission limits.
- (d) Monitoring and stack testing.
- (e) Recordkeeping and reporting.

Model Rule—Increments or Progress

§ 60.6330 What are my requirements for meeting increments of progress and achieving final compliance?

If you plan to achieve compliance more than 1 year but less than 3 years following the effective date of state plan

approval and a permit modification is not required, or more than 1 year but less than 3 years following the date of issuance of a revised construction or operation permit if a permit modification is required, you must meet five increments of progress:

- (a) Submit a final control plan.
- (b) Submit a notification of retrofit contract award.
- (c) Initiate onsite construction.
- (d) Complete onsite construction.
- (e) Achieve final compliance.

§ 60.6335 When must I complete each increment of progress?

Table 1 to Subpart WWW specifies compliance dates for each of the increments of progress.

§ 60.6340 What must I include in the notifications of achievement of my increments of progress?

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

- (a) Notification that the increment of progress has been achieved.
- (b) Any items required to be submitted with the increment of progress (§§ 60.6355 through 60.6375).
- (c) The notification must be signed by the owner or operator of the municipal waste combustor.

§ 60.6345 When must I submit the notifications of achievement of increments of progress?

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

§ 60.6350 What if I do not meet an increment of progress?

If you fail to meet an increment of progress, you must submit a notification to the Administrator postmarked within 10 business days after the specified date in Table 1 to Subpart WWW for achieving that increment of progress. The notification must inform the Administrator that you did not meet the increment. You must include in the notification an explanation of why the increment of progress was not met and your plan for meeting the increment as expeditiously as possible. You must continue to submit reports each subsequent month until the increment of progress is met.

§ 60.6355 How do I comply with the increment of progress for submittal of a control plan?

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

- (a) Submit the final control plan, including a description of the devices for air pollution control and process

changes that you will use to comply with the emission limits and other requirements of this subpart.

- (b) You must maintain an onsite copy of the final control plan.

§ 60.6360 How do I comply with the increment of progress for awarding contracts?

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

§ 60.6365 How do I comply with the increment of progress for initiating onsite construction?

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

§ 60.6370 How do I comply with the increment of progress for completing onsite construction?

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

§ 60.6375 How do I comply with the increment of progress for achieving final compliance?

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

- (a) Complete all process changes and complete retrofit construction as specified in the final control plan.
- (b) Connect the air pollution control equipment with the municipal waste combustor identified in the final control plan and complete process changes to the municipal waste combustor so that if the affected municipal waste combustor is brought online, all necessary process changes and air pollution control equipment are operating as designed.

§ 60.6380 What must I do if I close my municipal waste combustor and then restart my municipal waste combustor?

- (a) If you close your municipal waste combustor but will reopen it prior to the final compliance date in your state plan, you must meet the increments of progress specified in § 60.6380.

- (b) If you close your municipal waste combustor but will restart it after your final compliance date, you must complete emission control retrofit and meet the emission limits and good

combustion practices on the date your municipal waste combustor restarts operation.

§ 60.6385 What must I do if I plan to permanently close my municipal waste combustor and not restart it?

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

- (b) If the closure date is later than 1 year but up to 3 years after the effective date of state plan approval, you must enter into a legally binding closure agreement with the Administrator by the date your final control plan is due. The agreement must specify the date by which operation will cease.

Model Rule—Good Combustion Practices: Operator Training

§ 60.6390 What types of training must I do?

There are two types of required training:

- (a) Training of operators of municipal waste combustors using the EPA or a state-approved training course.

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

§ 60.6395 Who must complete the operator training course? By when?

- (a) Three types of employees must complete the EPA or state-approved operator training course:

- (1) Chief facility operators.
- (2) Shift supervisors.
- (3) Control room operators.

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

- (1) Six months after your municipal waste combustor starts up.

- (2) The date before an employee assumes responsibilities that affect operation of the municipal waste combustor.

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

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

§ 60.6400 Who must complete the site-specific training course?

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

- (a) Chief facility operators.
- (b) Shift supervisors.
- (c) Control room operators.
- (d) Ash handlers.
- (e) Maintenance personnel.
- (f) Crane or load handlers.

§ 60.6405 What site-specific training must I provide?

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

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

- (1) Six months after your municipal waste combustor starts up.
- (2) The date prior to the date an employee assumes responsibilities that affect operation of the municipal waste combustor.

(b) Establish a training program to review the site-specific operating manual with people whose responsibilities affect the operation of your municipal waste combustor. Complete the initial review by the later of two dates:

- (1) Six months after your municipal waste combustor starts up.
- (2) The date prior to the date an employee assumes responsibilities that affect operation of the municipal waste combustor.
- (c) Update your manual annually.
- (d) Following the initial review, review your operating manual with staff annually.

§ 60.6410 What information must I include in the site-specific operating manual?

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

- (a) A summary of all applicable standards in this subpart.
- (b) A description of the basic combustion theory that applies to a municipal waste combustor.
- (c) Procedures for receiving, handling, and feeding municipal solid waste.
- (d) Procedures to be followed during periods of startup, shutdown, and malfunction of the municipal waste combustor.
- (e) Procedures for maintaining a proper level of combustion air supply.
- (f) Procedures for operating the municipal waste combustor in compliance with the standards contained in this subpart.
- (g) Procedures for responding to periodic upset or off-specification conditions.

(h) Procedures for minimizing carryover of particulate matter.

(i) Procedures for handling ash.

(j) Procedures for monitoring emissions from the municipal waste combustor.

(k) Procedures for recordkeeping and reporting.

§ 60.6415 Where must I keep the site-specific operating manual?

You must keep your operating manual in a readily accessible location at your facility. It must be available for review or inspection for all persons required to undergo training as specified in § 60.6395. The operating manual and records of training as specified in § 60.6585 shall be available for inspection by the EPA or its delegated enforcement agency upon request.

Model Rule—Good Combustion Practices: Operator Certification**§ 60.6420 What types of operator certification must the chief facility operator and shift supervisor obtain and by when must they obtain it?**

(a) Each chief facility operator and shift supervisor must obtain and keep a current provisional operator certification from the American Society of Mechanical Engineers (QRO-1-2005) (incorporated by reference in § 60.17 of subpart A of this part) or a current provisional operator certification from your state certification program by the later of two dates:

- (1) Six months after the municipal waste combustor starts up.
- (2) Six months after they transfer to the municipal waste combustor or 6 months after they are hired to work at the municipal waste combustor.

(b) Each chief facility operator and shift supervisor must obtain and maintain a provisional certification, and must complete the full certification or be scheduled to take the full certification exam, by the later of two dates:

- (1) Six months after the municipal waste combustor starts up.
- (2) For a provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position, a full certification exam must be completed within six months after they transfer to the municipal waste combustor or 6 months after they are hired to work at the municipal waste combustor.

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

- (1) Obtain and maintain a current provisional operator certification from the American Society of Mechanical

Engineers or a state certification program in your state.

(2) Schedule a full certification exam with the American Society of Mechanical Engineers (QRO-1-2005) (incorporated by reference in § 60.17 of subpart A of this part).

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

§ 60.6425 After the required date for operator certification, who may operate the municipal waste combustor?

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

- (a) A fully certified chief facility operator.
- (b) A fully certified shift supervisor.
- (c) A provisionally certified chief facility operator or a provisionally certified shift supervisor who is scheduled to take the full certification exam specified in § 60.6420.

§ 60.6430 What if all the certified operators must be temporarily offsite?

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

(a) When the certified chief facility operator and certified shift supervisor are both offsite for 12 hours or less and no other certified operator is onsite, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor.

(b) When the certified chief facility operator and certified shift supervisor are offsite for more than 12 hours, but for 2 weeks or less, and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the Administrator. However, you must record the periods when the certified chief facility operator and certified shift supervisor are offsite and include the information in the annual report as specified under § 60.6630(l).

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

(1) Notify the Administrator in writing. In the notice, state what caused the absence and what you are doing to ensure that a certified chief facility operator or certified shift supervisor is onsite, as expeditiously as practicable. Submit this notification as a PDF file electronically according to § 60.6605(e).

(2) Submit a status report and corrective action summary to the Administrator every 4 weeks following the initial notification. If the Administrator notifies you that your status report or corrective action summary is disapproved, the municipal waste combustor may continue operation for 90 days, but then must cease operation. If corrective actions are taken in the 90-day period such that the Administrator withdraws the disapproval, municipal waste combustor operation may continue. Submit this status report as a PDF file electronically according to § 60.6605(e).

(d) A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustor may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Administrator for up to six months before taking the ASME QRO certification exam as specified in § 60.6420.

Model Rule—Good Combustion Practices: Operating Requirements

§ 60.6435 What are the operating practice requirements for my municipal waste combustor?

(a) You must meet the carbon monoxide emission limits specified in Table 2 to Subpart WWWW no later than March 10, 2031.

(b) You must not operate your municipal waste combustor at loads greater than 110 percent of the maximum demonstrated load of the municipal waste combustor (4-hour block average), as specified under “Definitions” (§ 60.6685), except as specified in paragraphs (b)(1) and (2) of this section. The averaging time is specified under § 60.6550.

(1) During the annual dioxins/furans or mercury performance test and the 2 weeks preceding the annual dioxins/furans or mercury performance test, the municipal waste combustor load limit is not applicable if the provisions of paragraph (b)(2) of this section are met.

(2) The Administrator may waive in writing the municipal waste combustor load limit for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities

for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The municipal waste combustor load limit continues to apply, and remains enforceable, until and unless the Administrator grants the waiver.

(c) You must not operate your municipal waste combustor so that the temperature measured at the inlet of the particulate matter control device exceeds 17 °C above the maximum demonstrated temperature of the particulate matter control device (4-hour block average), as specified under “Definitions” (§ 60.6685), except as specified in paragraphs (c)(1) and (2) of this section. The averaging time is specified under § 60.6555. The requirements specified in this paragraph apply to each particulate matter control device used.

(1) During the annual dioxins/furans or mercury performance test and the 2 weeks preceding the annual dioxins/furans or mercury performance test, the particulate matter control device temperature limitations are not applicable if the provisions of paragraph (c)(2) of this section are met.

(2) The Administrator may waive in writing the particulate matter control device temperature limits for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The temperature limits continue to apply, and remain enforceable, until and unless the Administrator grants the waiver.

(d) If your municipal waste combustor uses activated carbon to control dioxins/furans or mercury emissions, you must meet the requirements for activated carbon injection rate during dioxins/furans or mercury testing as specified in § 60.6560.

§ 60.6440 What happens to the operating requirements during periods of startup, shutdown, and malfunction?

The operating requirements under this subpart apply at all times including periods of municipal waste combustor warmup, startup, shutdown, and malfunction. Monitoring data cannot be dismissed or excluded from compliance calculations during periods of startup, shutdown, or malfunction, but must be recorded and reported in accordance with the provisions of § 60.6595(e).

Model Rule—Emission Limits

§ 60.6445 What pollutants are regulated by this subpart?

Eleven pollutants, in four groupings, are regulated:

- (a) Organics. Dioxins/furans.
- (b) Metals.
 - (1) Cadmium.
 - (2) Lead.
 - (3) Mercury.
 - (4) Opacity.
 - (5) Particulate matter.
- (c) Acid gases.
 - (1) Hydrogen chloride.
 - (2) Nitrogen oxides.
 - (3) Sulfur dioxide.
- (d) Other.
 - (1) Carbon monoxide.
 - (2) Fugitive ash.

§ 60.6450 What emission limits must I meet? By when?

(a) You must meet the emission limits specified in Table 3 to Subpart WWWW. You must meet the limits no later than March 10, 2031.

(b) The visible emissions of combustion ash discharged to the atmosphere from an ash conveying system (including conveyor transfer points) must not exceed 5 percent of the observation period (*i.e.*, 9 minutes per 3-hour period), as determined by EPA Reference Method 22 observations as specified in § 60.6530(a). You must meet the limits no later than March 10, 2031. This visible emission limit does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the visible emission limit does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems. This visible emissions limit does not apply to visible emissions that occur during repair and maintenance of the combustion ash conveying systems while the municipal waste combustor is not operating.

§ 60.6455 What happens to the emission limits during periods of startup, shutdown, and malfunction?

The emission limits under this subpart apply at all times including periods of municipal waste combustor warmup, startup, shutdown, and malfunction. Monitoring data cannot be dismissed or excluded from compliance calculations during periods of startup, shutdown, or malfunction, but must be recorded and reported in accordance with the provisions of § 60.6595(e).

Model Rule—Continuous Emission Monitoring

§ 60.6460 What types of continuous emission monitoring must I perform?

To continuously monitor emissions, you must perform four tasks:

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

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

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

(d) Install a continuous opacity monitoring system.

§ 60.6465 What continuous emission monitoring systems must I install for gaseous pollutants?

(a) You must install, calibrate, maintain, and operate continuous emission monitoring systems for oxygen (or carbon dioxide), sulfur dioxide, carbon monoxide, and nitrogen oxides to demonstrate compliance with the emission limits specified in Tables 2 and 3 to Subpart WWWW. Install the continuous emission monitoring systems for sulfur dioxide, nitrogen oxides, carbon monoxide, and oxygen (or carbon dioxide) at the outlet of the air pollution control device.

(b) If you elect to continuously monitor emissions for particulate matter, cadmium, lead, mercury, or hydrogen chloride in lieu of performance testing, you must install, calibrate, maintain, and operate continuous emissions monitoring systems for monitoring the particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions discharged to the atmosphere and continuous emissions monitoring systems for oxygen (or carbon dioxide) at the outlet of the air pollution control device.

(c) You must install, evaluate, and operate each continuous emission monitoring system according to the "Monitoring Requirements" in § 60.13.

(d) You must monitor the oxygen (or carbon dioxide) concentration at each location where you monitor carbon monoxide, sulfur dioxide, and nitrogen oxides. If you elect to continuously monitor emissions for particulate matter, cadmium, lead, mercury, or hydrogen chloride, you must monitor the oxygen (or carbon dioxide) concentration at each location where you monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride.

(e) You may choose to monitor carbon dioxide instead of oxygen as a diluent gas. If you choose to monitor carbon dioxide, then an oxygen monitor is not required and you must follow the requirements in § 60.6485.

§ 60.6470 How are the data from the continuous emission monitoring systems used?

(a) You must use data from the continuous emission monitoring

systems for sulfur dioxide, nitrogen oxides, and carbon monoxide to demonstrate continuous compliance with the applicable emission limits specified in Tables 2 and 3 to Subpart WWWW. To demonstrate compliance for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash, see § 60.6520.

(b) You may elect to continuously monitor emissions for particulate matter, cadmium, lead, mercury, or hydrogen chloride to demonstrate continuous compliance with the emission limits specified in Table 3 to Subpart WWWW.

(c) For pollutants that you continuously monitor as described in paragraphs (a) and (b) of this section, you may request that compliance with the emission limits 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 shall be established as specified in § 60.6485.

(d) For pollutants that you continuously monitor as described in paragraphs (a) and (b) of this section, demonstrate compliance with the emission limits in Tables 2 and 3 to Subpart WWWW by using the continuous emission monitoring system specified § 60.6465 to collect the minimum amount of monitoring data specified in § 60.6490 and calculating the average emission concentration as specified in § 60.6495 and Table 5 to Subpart WWWW, as applicable.

§ 60.6475 How do I make sure my continuous emission monitoring systems are operating correctly?

(a) Conduct initial, daily, quarterly, and annual evaluations of your continuous emission monitoring systems that measure oxygen (or carbon dioxide), sulfur dioxide, nitrogen oxides, and carbon monoxide and your continuous emission monitoring systems for any pollutants (particulate matter, cadmium, lead, mercury, or hydrogen chloride) for which you elect to continuously monitor emissions, as appropriate.

(b) Complete your initial evaluation of the continuous emission monitoring systems no later than 180 days after your final compliance date, or, for pollutants for which you elect to continuously monitor emissions and for which you previously determined compliance by conducting a performance test, within 180 days of notification of the Administrator of use of the continuous monitoring system, whichever is later.

(c) For initial and annual evaluations, you must collect data concurrently (or within 30 to 60 minutes) from your oxygen (or carbon dioxide) continuous emission monitoring system, your sulfur dioxide, nitrogen oxides, and carbon monoxide continuous emission monitoring systems, as appropriate, from continuous emission monitoring systems for any pollutants (particulate matter, cadmium, lead, mercury, or hydrogen chloride) for which you elect to continuously monitor emissions, as appropriate, and the appropriate test methods specified in Tables 4 and 5 to Subpart WWWW. Collect the data during each initial and annual evaluation of your continuous emission monitoring systems following the applicable performance specifications in Table 4 to Subpart WWWW.

(d) For continuous emission monitoring systems that measure oxygen (or carbon dioxide), sulfur dioxide, nitrogen oxides, and carbon monoxide, follow the quality assurance procedures in Procedure 1 of appendix F of this part for each continuous emission monitoring system. The procedures include annual relative accuracy test audit, daily calibration drift, and quarterly accuracy determinations. For continuous emission monitoring systems for any pollutants (particulate matter, cadmium, lead, mercury, or hydrogen chloride) for which you elect to continuously monitor emissions, as appropriate, follow the quality assurance procedures of the applicable procedures of appendix F as specified in Table 3 to Subpart WWWW or the site-specific monitoring plan.

§ 60.6480 What is my schedule for evaluating continuous emission monitoring systems?

(a) Conduct annual relative accuracy test audits of your continuous emission monitoring systems no less than 9 calendar months and no more than 15 calendar months following the previous performance test; you must complete five relative accuracy test audits in each 5-year calendar period.

(b) Evaluate your continuous emission monitoring systems daily and quarterly as specified in procedure 1 in appendix F of this part.

§ 60.6485 What must I do if I choose to monitor carbon dioxide instead of oxygen as a diluent gas?

You must establish the relationship between oxygen and carbon dioxide during the initial evaluation of your continuous emission monitoring systems. You may reestablish the relationship during annual performance

compliance tests. To establish the relationship use three procedures:

(a) Use EPA Reference Method 3A or 3B in appendix A of this part, or as an alternative the manual method portion of ASME PTC-19-10-1981—part 10, as applicable, to determine oxygen concentration at the location of your carbon dioxide monitor.

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

(c) Use the fuel-factor equation in EPA Reference Method 3B in appendix A of this part to determine the relationship between oxygen and carbon dioxide.

§ 60.6490 What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems?

(a) Where continuous emission monitoring systems are required, obtain 1-hour arithmetic averages. Make sure the averages for sulfur dioxide, nitrogen oxides, and carbon monoxide, and, if you elect to continuously monitor emissions, the averages for particulate matter, cadmium, lead, mercury, or hydrogen chloride, are in the units specified in Tables 2 and 3 to Subpart WWWW at 7 percent oxygen (or the equivalent carbon dioxide level). Use the 1-hour averages of oxygen (or carbon dioxide) data from your continuous emission monitoring system to determine the actual oxygen (or carbon dioxide) level and to calculate emissions at 7 percent oxygen (or the equivalent carbon dioxide level). The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2) of subpart A of this part. Do not correct CEMS data during warmup, startup, and shutdown, as defined in this subpart, to 7 percent oxygen. CEMS data during warmup, startup, and shutdown are used as measured.

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

(c) Valid continuous monitoring system hourly averages shall be obtained for all times the affected facility is operated except as specified in § 60.13(e).

(d) If you do not obtain the minimum data required in paragraphs (a) through (c) of this section, you must still use all valid data from the continuous emission monitoring systems in calculating emission concentrations in accordance with § 60.6495.

§ 60.6495 How do I convert my 1-hour arithmetic averages into appropriate averaging times and units?

(a) Use equation 1 in § 60.6680(a) to calculate emissions at 7 percent oxygen.

(b) Use the test methods in Table 4 to Subpart WWWW to calculate the 24-hr daily geometric average concentrations and percent reductions of sulfur dioxide emissions and the 24-hr daily arithmetic average for concentrations of nitrogen oxides.

(c) Calculate the 4-hour block or 24-hour daily arithmetic averages specified in Table 2 to Subpart WWWW (as applicable) from 1-hour arithmetic averages expressed in parts per million by volume corrected to 7 percent oxygen (dry basis) for concentrations of carbon monoxide. CEMS data during warmup, startup, and shutdown, as defined in this subpart, are not corrected to 7 percent oxygen, and are used as measured.

(d) If you elect to continuously monitor emissions of particulate matter, mercury, cadmium, lead, or hydrogen chloride, use EPA Reference Method 19, section 12.4.1, in appendix A of this part, to calculate a 24-hour daily block arithmetic average for emission concentrations.

§ 60.6500 What is required for my continuous opacity monitoring system and how are the data used?

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

(b) Install, evaluate, and operate each continuous opacity monitoring system according to § 60.13.

(c) The output of the continuous opacity monitoring system shall be recorded on a 6-minute average basis.

(d) Complete an initial evaluation of your continuous opacity monitoring system according to Performance Specification 1 in appendix B of this part. Complete the evaluation no later than 180 days after your final compliance date.

(e) Follow Table 4 to Subpart WWWW to establish the procedures and test methods to determine compliance with the opacity limit in Table 3 to Subpart WWWW. The data obtained from your continuous opacity monitoring system are not used to determine compliance with the opacity limit.

§ 60.6505 What additional requirements must I meet for the operation of my continuous emission monitoring systems and continuous opacity monitoring system?

(a) Use the required span values and applicable performance specifications in Table 4 to Subpart WWWW.

(b) For continuous emission monitoring systems measuring carbon monoxide, if your municipal waste combustor is subject to the 100 parts per million dry volume carbon monoxide standard, the relative accuracy criterion of 5 parts per million dry volume is calculated as the absolute value of the mean difference between the reference method and continuous emission monitoring systems.

§ 60.6510 What must I do if any of my continuous emission monitoring systems are temporarily unavailable to meet the data collection requirements?

(a) When you are unable to obtain emissions of particulate matter, sulfur dioxide, or nitrogen oxides because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, you must obtain emissions data by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 and provide, as necessary, valid emissions data for all times that the municipal waste combustor is operated.

(b) If you are unable to obtain emissions of carbon monoxide emissions because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, you must obtain emissions data by using other monitoring systems as approved by the Administrator or EPA Reference Method 10 and provide, as necessary, valid emissions data for all times that the municipal waste combustor is operated.

(c) If you elect to continuously monitor mercury, cadmium, lead, or hydrogen chloride and you are unable to obtain emissions data because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, you must obtain emissions data by using other monitoring systems as approved by the Administrator.

Model Rule—Stack Testing

§ 60.6515 What types of stack tests must I conduct?

Conduct initial and annual stack tests to measure the emission levels of particulate matter, opacity, cadmium, lead, mercury, hydrogen chloride, dioxins/furans, and fugitive ash in accordance with the methods specified in Table 5 to Subpart WWWW.

§ 60.6520 How are the stack test data used?

You must use results of stack tests for particulate matter, opacity, cadmium, lead, mercury, hydrogen chloride,

dioxins/furans, and fugitive ash to demonstrate compliance with the applicable emission limits in Table 3 to Subpart WWWW. When calculating total dioxins/furans, zero may be used for congeners that are below the estimated detection limit (EDL). For estimated maximum possible concentration (EMPC) results, zero may be used when the EMPC is below the EDL, otherwise the EMPC must be used in determining total dioxins/furans. To demonstrate compliance for carbon monoxide, nitrogen oxides, and sulfur dioxide, see § 60.6470.

§ 60.6525 What schedule must I follow for the stack testing?

(a) Conduct initial stack tests for sulfur dioxide, nitrogen oxides, and each of the pollutants listed in § 60.6515 by 180 days after your final compliance date.

(b) Conduct annual stack tests for each of the pollutants listed in § 60.6515 after the initial stack test. Conduct each annual stack test no less than 9 calendar months and no more than 15 calendar months following the previous performance test, except as specified in § 60.6540 of this section. You must complete five performance tests in each 5-year calendar period.

§ 60.6530 What procedures and test methods must I use to stack test?

(a) Follow Table 5 to Subpart WWWW to establish the procedures and test methods, and other specific testing requirements for the different pollutants.

(b) Stack tests for all the pollutants must consist of at least three test runs, as specified in § 60.8, conducted under representative full load operating conditions. For particulate matter, opacity, cadmium, lead, mercury, hydrogen chloride, and dioxins/furans, use the arithmetic average of the pollutant emission concentrations from the three test runs to determine compliance with the applicable emission limits in Table 3 to Subpart WWWW. For fugitive ash, use the average duration of visible emissions per hour as calculated from three 1-hr observations to determine compliance with the emission limits in Table 2 to Subpart WWWW.

(c) Obtain an oxygen (or carbon dioxide) measurement at the same time as your pollutant measurements to determine diluent gas levels, as specified in § 60.6465.

(d) You may request that compliance with emission limits 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 shall be established as specified in § 60.6485.

(e) Use equation 1 in § 60.6680(a) to calculate emission levels at 7 percent oxygen (or an equivalent carbon dioxide basis). See the individual test methods in Table 5 to Subpart WWWW for other required equations.

§ 60.6535 May I conduct stack testing less often?

(a) For annual performance stack tests for dioxins/furans, you may conduct annual stack tests on an alternate performance testing schedule for the purposes of evaluating system performance to establish new operating parameter levels, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. You may test one unit for dioxins/furans and apply the dioxins/furans operating parameters to similarly designed and equipped units on site if you meet the following conditions. First, you have multiple municipal waste combustors onsite that are subject to this subpart. Second, all those municipal waste combustors have demonstrated levels of dioxins/furans emissions less than or equal to 7 nanograms per dry standard cubic meter (total mass) for 2 consecutive years. In that case, you may choose to conduct annual stack tests on only one municipal waste combustor per year at your plant. The provision only applies to performance testing for dioxins/furans emissions. You must meet the requirements in paragraphs (b) through (e) of this section.

(b) At a minimum, you must conduct a performance test for dioxins/furans emissions for one municipal waste combustor on an annual basis (no less than 9 calendar months and no more than 15 months following the previous performance test), and you must complete five performance tests in each 5-year calendar period. Each year a different municipal waste combustor must be tested, and the municipal waste combustor must be tested in sequence (e.g., unit 1, unit 2, unit 3, as applicable).

(1) If each annual performance test continues to indicate a dioxins/furans emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass), you may continue to conduct a performance test on only one municipal waste combustor per year.

(2) If any annual performance test indicates a dioxins/furans emission level greater than 3.6 nanograms per dry standard cubic meter (total mass), you

must conduct all subsequent annual performance tests on all municipal waste combustor. You must continue to conduct performance tests on all units annually until you can demonstrate dioxins/furans emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass) through performance tests for all units subject to this subpart for 2 consecutive years.

(c) Upon meeting the requirements in paragraph (b) of this section for one affected facility, you may elect to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels for dioxins/furans as established in § 60.6560 to similarly designed and equipped units on site.

(d) Upon testing each subsequent unit in accordance with the testing schedule established in paragraph (b) of this section, the dioxins/furans and mercury emissions of the subsequent unit must not exceed the dioxins/furans and mercury emissions measured in the most recent test of that unit prior to the revised operating parameter levels.

(e) If you follow the performance testing schedule specified in paragraph (b) of this section and apply the carbon injection system operating parameters to similarly designed and equipped units on site, you must follow the procedures specified in § 60.6630(j) for reporting, including the procedures specified in § 60.6630(i) for reporting the selection of this schedule.

§ 60.6540 May I conduct continuous monitoring or sampling in lieu of stack testing?

(a) In lieu of conducting performance stack tests according to the requirements of § 60.6515 to demonstrate continuous compliance for particulate matter, cadmium, lead, mercury, or hydrogen chloride, you may install, calibrate, maintain, and operate continuous emissions monitoring systems for monitoring emissions according to the requirements of § 60.6460 through § 60.6510. If you elect to continuously monitor emissions instead of conducting performance testing, you are not required to complete annual performance testing as specified in Table 5 to Subpart WWWW. If you elect to continuously monitor particulate matter emissions, you are not required to continuously monitor opacity as specified in § 60.6460(d) and § 60.6500.

(b) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, you must also meet the following requirements:

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

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

(c) If you elect to install, calibrate, maintain, and operate a continuous emission monitoring system for cadmium, lead, mercury, or hydrogen chloride, develop and submit for approval by EPA, a site-specific mercury, cadmium, lead, or hydrogen chloride monitoring plan that addresses the elements and requirements in paragraphs (c)(1) through (7) of this section.

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

(2) Performance and equipment specifications for the sample interface, the pollutant concentration analyzer, and the data collection and reduction system.

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

(4) Provisions for periods when the continuous emission monitoring system is out of control, including the requirements described in paragraphs (c)(4)(i) through (iii) of this section:

(i) A continuous emission monitoring system is out of control if either of the following conditions are met: 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; or the continuous emission monitoring system fails a performance test audit (*e.g.*, cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.

(ii) When the continuous emission monitoring system is out of control, take corrective action and repeat all necessary tests that indicate that the system is out of control until the performance requirements are within the applicable limits. The beginning of the out-of-control period is the hour you conduct a performance check (*e.g.*, calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and your successful demonstration that the system is within the allowable limits.

You may not use recorded data from the period the continuous emission monitoring system is out of control in data averages and calculations or to meet any data availability requirements.

(iii) You must submit all information concerning out-of-control periods for your continuous emission monitoring system, including start and end dates and hours and descriptions of corrective actions taken, in the annual or semiannual compliance reports required in § 60.6645(d).

(5) Ongoing data quality assurance procedures for continuous emission monitoring systems as described in paragraphs (c)(5)(i) and (ii) of this section.

(i) A continuous emission monitoring system quality control program. You must develop and, upon request, submit to EPA for approval a site-specific performance evaluation test plan for the continuous emission monitoring system performance evaluation required under paragraph (c)(5)(ii) of this section. In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the operations described in paragraphs (c)(5)(i)(A) through (c)(5)(i)(F) of this section.

(A) Initial and any subsequent calibration of the continuous emission monitoring system;

(B) Determination and adjustment of the calibration drift of the continuous emission monitoring system;

(C) Preventive maintenance of the continuous emission monitoring system, including spare parts inventory;

(D) Data recording, calculations, and reporting;

(E) Accuracy audit procedures, including sampling and analysis methods; and

(F) Program of corrective action for a malfunctioning continuous emission monitoring system.

(ii) Your performance evaluation test plan must include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal quality assurance program must include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous emission monitoring system performance, for example, plans for relative accuracy testing using the appropriate reference method in § 60.6475(c). The external quality assurance program shall include, at a

minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

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

(7) You must operate and maintain the continuous emission monitoring system in continuous operation according to the site-specific monitoring plan and procedures 5 and 6 of appendix F of this part.

(d) You may use a continuous emission monitoring system for mercury or hydrogen chloride following the date of approval of the site-specific monitoring plan required in paragraph (c) of this section. You may use a continuous emission monitoring system for cadmium or lead following the date a final performance specification applicable to a cadmium or lead monitor is published in the **Federal Register** and the date of approval of the site-specific monitoring plan required in paragraph (c) of this section.

(e) In lieu of conducting performance stack tests according to the requirements of § 60.6515 to demonstrate continuous compliance for mercury or dioxins/furans, you may install, calibrate, maintain, and operate a continuous automated sampling system for monitoring mercury or dioxins/furans emissions and record the output of the system. For dioxins/furans emissions, you must also analyze the sample using EPA Method 23.

(f) You may use a continuous automated sampling system for dioxins/furans following the date a final performance specification applicable to dioxins/furans from monitors is published in the **Federal Register** or the date of approval of a site-specific monitoring plan.

(g) If you elect to use a continuous automated sampling system for dioxins/furans or mercury, you must meet the following requirements:

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

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

(3) Complete your initial performance evaluation of the continuous automated sampling system no later than 180 days after your final compliance date, or, if you previously determined compliance by conducting a performance test, within 180 days of notification to the Administrator of use of the continuous

automated sampling system, whichever is later.

(4) You may request that compliance with the emission limits 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 shall be established as specified in § 60.6485.

(5) Conduct an initial performance test for emissions as required under § 60.8 of subpart A of this part. Determine compliance with the emission limits in Table 2 to Subpart WWWW using the continuous automated sampling system specified in paragraph (e) of this section to collect integrated samples and analyze emissions for the following time periods:

(i) For dioxins/furans, collect an integrated sample over each 2-week period. Analyze the collected samples using Method 23.

(ii) For mercury, collect an integrated sample over each 24-hour daily period. Analyze the sample according to the applicable final performance specification or the approved site-specific monitoring plan required by paragraph (h) of this section.

(6) Determine compliance with the emission limits in Table 2 to Subpart WWWW based on 2-week emission concentrations for dioxins/furans and on the 24-hour daily emission concentrations for mercury using samples collected at the system outlet. For mercury percent reductions, also use the corresponding 24-hour daily emission concentration samples collected at the system inlet. The emission concentrations shall be expressed in nanograms per dry standard cubic meter (total mass) for dioxins/furans and micrograms per dry standard cubic meter for mercury, corrected to 7 percent oxygen (dry basis). Do not correct CEMS data during warmup, startup, and shutdown to 7 percent oxygen. CEMS data during warmup, startup, and shutdown are used as measured.

(7) Beginning on the date two years after the respective final performance specification for continuous automated sampling systems for dioxins/furans is published in the **Federal Register** or on the date two years after approval of a site-specific monitoring plan, you must operate your continuous automated sampling system and collect emissions for all times that your municipal waste combustor is operating.

(8) Use all valid data in calculating emission concentrations.

(9) For mercury, operate the continuous automated sampling system

according to Performance Specification 12B in appendix B of this part or, for mercury or dioxins/furans, the approved site-specific monitoring plan.

(10) If you elect to install, calibrate, maintain, and operate a continuous automated sampling system for dioxins/furans or mercury, develop and implement a site-specific monitoring plan as specified in paragraph (h) of this section. If you rely on a performance specification, you may refer to that document in addressing the applicable procedures and criteria. For mercury, you must incorporate procedure 5 of appendix F to this part into the site-specific monitoring plan.

(11) When you are unable to obtain emissions data because of continuous automated sampling system breakdowns, repairs, quality assurance checks, or adjustments, you must obtain parametric monitoring data by using other monitoring systems as approved by EPA.

(h) If you elect to install, calibrate, maintain, and operate a continuous automated sampling system for dioxins/furans or mercury, develop and submit for approval by EPA a site-specific monitoring plan that has sufficient detail to assure the validity of the continuous automated sampling system data and that addresses the elements and requirements in paragraphs (h)(1) through (7) of this section.

(1) Installation of the continuous automated sampling system sampling probe or other interface at a measurement location relative to each municipal waste combustor such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).

(2) Performance and equipment specifications for the sample interface, the pollutant concentration analytical method, and the data collection system.

(3) Performance evaluation procedures and acceptance criteria.

(4) Provisions for periods when the continuous automated sampling system is malfunctioning or is out of control, including the requirements described in paragraphs (h)(4)(i) through (iii) of this section.

(i) The site-specific monitoring plan must identify criteria for determining that the continuous automated sampling system is out of control, including periods when the sampling system is not collecting a representative sample or is malfunctioning, or when the analytical method does not meet site-specific quality criteria established in paragraph (h)(5) of this section.

(ii) When the continuous automated sampling system is out of control, take

corrective action and repeat all necessary tests that indicate that the system is out of control until the performance requirements are within the applicable limits. The out-of-control period includes all hours that the sampling system was not collecting a representative sample or was malfunctioning, or hours represented by a sample for which the analysis did not meet the relevant quality criteria. You may not use emissions data from the period the continuous automated sampling system is out-of-control period to determine compliance with the emission limits or to meet any data availability requirements.

(iii) You must submit all information concerning out-of-control periods for your continuous automated sampling system, including start and end dates and hours, estimates of emissions during the out-of-control period and the basis of the estimate, and descriptions of corrective actions taken, in the annual or semiannual compliance reports required in § 60.6645(d).

(5) Ongoing data quality assurance procedures for continuous automated sampling systems as described in paragraphs (h)(5)(i) and (ii) of this section.

(i) A continuous automated sampling system and analysis quality control program. You must develop and submit to EPA for approval, upon request, a site-specific performance evaluation test plan for the continuous automated sampling system performance evaluation required in paragraph (h)(5)(ii) of this section. In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the operations described in paragraphs (h)(5)(i)(A) through (G) of this section.

(A) Correct placement, installation of the continuous automated sampling system such that the system is collecting a representative sample of gas;

(B) Initial and subsequent calibration of flow such that the sample collection rate of the continuous automated sampling system is known and verifiable;

(C) Procedures to assure representative (e.g., proportional or isokinetic) sampling;

(D) Preventive maintenance of the continuous automated sampling system, including spare parts inventory and procedures for cleaning equipment, replacing sample collection media, or other servicing at the end of each sample collection period;

(E) Data recording and reporting, including an automated indicator and recording device to show when the

continuous automated monitoring system is operating and collecting data and when it is not collecting data;

(F) Accuracy audit procedures for analytical methods; and

(G) Program of corrective action for a malfunctioning continuous automated sampling system.

(ii) Your performance evaluation test plan must include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal quality assurance program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous automated sampling system performance, for example, plans for relative accuracy testing using the appropriate reference method in paragraph (h)(3) of this section, and an assessment of quality of analysis results. The external quality assurance program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(6) You must conduct a performance evaluation of each continuous automated sampling system in accordance with the site-specific monitoring plan.

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

Model Rule—Other Monitoring Requirements

§ 60.6545 Must I meet other requirements for continuous monitoring?

You must also monitor all the following three operating parameters:

(a) Load level of each municipal waste combustor.

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

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

§ 60.6550 How do I monitor the load of my municipal waste combustor?

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

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

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

(3) Calculate the steam (or feed water) flow rate using the method in “American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1—1964 (R1991),” section 4 (incorporated by reference, see § 60.17 of subpart A of this part).

(4) Design, construct, install, calibrate, and use nozzles or orifices for flow rate measurements, using the recommendations in “American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, part II of Fluid Meters,” 6th Edition (1971), chapter 4 (incorporated by reference, see § 60.17 of subpart A of this part).

(5) Before each dioxins/furans performance stack test, or at least once a year, calibrate all signal conversion elements associated with steam (or feed water) flow measurements according to the manufacturer instructions. Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.

(b) Determine the maximum demonstrated municipal waste combustor load during the initial performance test for dioxins/furans and each subsequent performance test specified in § 60.6525 during which you achieve compliance with the dioxins/furans emission limit in Table 3 to Subpart WWW. The maximum demonstrated municipal waste combustor load is the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test. If a subsequent dioxins/furans performance test is being performed on only one municipal waste combustor as specified in § 60.6535, you may apply the same maximum municipal waste combustor load from the tested facility for all the similarly designed and operated municipal waste combustors.

§ 60.6555 How do I monitor the temperature of flue gases at the inlet of my particulate matter control device?

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

(b) Calculate the temperature of the flue gas stream in 4-hour block arithmetic averages.

(c) Determine the maximum demonstrated particulate matter control device temperature for each particulate matter control device during the initial performance test for dioxins/furans and each subsequent performance test specified in § 60.6525 during which you achieve compliance with the dioxins/furans emission limit. The maximum demonstrated particulate matter control device temperature is the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test. If a subsequent dioxins/furans performance test is being performed on only one municipal waste combustor as specified in § 60.6535, you may apply the same maximum particulate matter control device temperature from the tested facility for all the similarly designed and operated municipal waste combustors.

§ 60.6560 How do I monitor the injection rate of activated carbon?

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

(a) Select a carbon injection system operating parameter(s) that can be used to calculate carbon feed rate (for example, screw feeder speed, hopper volume, or hopper refill frequency).

(b) During the initial and each subsequent dioxins/furans and mercury performance stack test specified in § 60.6525, estimate an average carbon feed rate in kilograms (or pounds) per hour. You must determine an average operating parameter level that correlates to the carbon feed rate and establish a relationship between the operating parameter(s) and the carbon feed rate in order to estimate the average carbon feed rate. If a subsequent dioxins/furans performance test is being performed on only one municipal waste combustor as specified in § 60.6535, you may apply the same estimated average carbon mass feed rate from the tested facility for all the similarly designed and operated municipal waste combustors.

(c) Continuously monitor the selected carbon injection operating parameter(s) (as specified in paragraph (b) of this section) during all periods when the municipal waste combustor is operating and combusting waste and calculate the 8-hour block average carbon feed rate in kilograms (or pounds) per hour, based on the selected operating parameter. The 8-hour block average must equal or exceed the level(s) documented during the performance tests specified under paragraph (b) of this section, except that during the annual dioxins/furans or

mercury performance test and the 2 weeks preceding the annual dioxins/furans or mercury performance test, the limit for average mass carbon feed rate may be waived following permission of the Administrator if the tests are for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

(d) You must estimate the total carbon usage of the facility (kilograms or pounds) for each calendar quarter using two independent methods:

(1) The weight of carbon delivered to the facility.

(2) Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation for each municipal waste combustor, based on the selected carbon injection operating parameter(s) specified in paragraph (b) of this section, and as specified in equation 2 to § 60.6680.

(e) Use pneumatic injection pressure or another carbon injection system operational indicator for additional verification of proper carbon injection system operation. The operational indicator must provide an instantaneous visual and/or audible alarm to alert the operator of a potential interruption in the carbon feed that would not normally be indicated by direct monitoring of carbon mass feed rate (e.g., continuous weight loss feeder) or monitoring of the carbon system operating parameter(s) that are the indicator(s) of carbon mass feed rate (e.g., screw feeder speed). The carbon injection system operational indicator used to provide additional verification of carbon injection system operation, including basis for selecting the indicator and operator response to the indicator alarm, shall be included in the site-specific operating manual required under § 60.6410 of this subpart.

§ 60.6565 What is the minimum amount of monitoring data I must collect with my continuous parameter monitoring systems?

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

(1) Load level of the municipal waste combustor.

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

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

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

(c) Obtain valid 1-hour arithmetic averages for at least 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter.

§ 60.6570 What requirements must I meet for estimating my municipal waste combustor capacity?

(a) You must calculate the capacity for each continuous municipal waste combustor (e.g., capable of combusting continuously for a 24-hour period) based on 24 hours of operation at the maximum charging rate. You must determine the maximum charging rate separately for combustors that are designed based on heat capacity and for combustors that are not designed based on heat capacity.

(1) For combustors that are designed based on heat capacity, calculate the maximum charging rate based on the maximum design heat input capacity of the unit and a heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel or a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel.

(2) For combustors that are not designed based on heat capacity, the maximum charging rate is the maximum design charging rate.

(b) You must calculate the capacity for each batch feed municipal waste combustor based on the maximum design amount of municipal solid waste that can be charged per batch multiplied by the maximum number of batches that could be processed in a 24-hour period.

(1) You must calculate the maximum number of batches that could be processed in a 24-hour period by dividing 24 hours by the design number of hours required to process one batch of municipal solid waste. The maximum number of batches may include a fraction (e.g., if one batch requires 16 hours, then 24/16, or 1.5 batches, could be combusted in a 24-hour period).

(2) For batch combustors that are designed based on heat capacity, calculate the municipal waste combustor capacity in megagrams per day, based on the design heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel, or a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel.

Model Rule—Recordkeeping

§ 60.6575 What records must I keep?

You must keep all the following four types of records:

- (a) Operator training and certification.
- (b) Stack tests.
- (c) Continuously monitored pollutants and parameters.
- (d) Carbon feed rate.

§ 60.6580 Where must I keep my records and for how long?

(a) Keep all records onsite in paper copy or electronic format unless the Administrator approves another format. Any records required to be maintained by this subpart that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

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

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

§ 60.6585 What records must I keep for operator training and certification?

You must keep records of all the following six items:

(a) *Records of provisional certifications.* Include three items:

(1) Names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who are provisionally certified by the American Society of Mechanical Engineers or an equivalent state-approved certification program.

(2) Dates of the initial and renewal provisional certifications.

(3) Documentation showing current provisional certifications.

(b) *Records of full certifications.*

Include three items:

(1) Names of the chief facility operator, shift supervisors, and control room operators who are fully certified by the American Society of Mechanical Engineers or an equivalent state-approved certification program.

(2) Dates of initial and renewal full certifications.

(3) Documentation showing current full certifications.

(c) *Records showing completion of the operator training course.* Include all the following three items:

(1) Names of the chief facility operator, shift supervisors, and control room operators who have completed the EPA or state municipal waste combustion operator training course.

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

(3) Documentation showing completion of operator training course.

(d) *Records of reviews for site-specific operating manuals.* Include three items:

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

(2) Date of the initial review.

(3) Dates of subsequent annual reviews.

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

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

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

(i) Time of day that all certified persons are offsite.

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

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

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

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

§ 60.6590 What records must I keep for stack tests?

For stack tests required under § 60.6515, you must keep records of all the following four items:

(a) The results of the stack tests for eight pollutants or parameters recorded in the appropriate units of measure specified in Table 3 to Subpart WWW:

(1) Dioxins/furans.

(2) Cadmium.

(3) Lead.

(4) Mercury.

(5) Opacity.

(6) Particulate matter.

(7) Hydrogen chloride.

(8) Fugitive ash.

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

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

(d) The calendar date of each record.

§ 60.6595 What records must I keep for continuously monitored pollutants or parameters?

You must keep records of all the following eight items.

(a) *Records of monitoring data.* Document all the following eight 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 1-hour average load levels of your municipal waste combustor.

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

(7) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing, all 1-hour average concentrations of particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions.

(8) If you monitor emissions with a CEMS, you must indicate which data are CEMS data during warmup, startup, and shutdown.

(b) *Records of average concentrations.* Document seven parameters:

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

(2) All 24-hour daily arithmetic average concentrations of nitrogen oxides emissions.

(3) All 4-hour block or 24-hour daily block arithmetic average concentrations of carbon monoxide emissions, as applicable.

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

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

(6) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing, all 24-hour daily arithmetic average concentrations and percent reductions, as appropriate, of particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions.

(7) If you elect to use a continuous automated sampling system to monitor mercury or dioxins/furans instead of conducting performance testing, all

integrated 24-hour mercury concentrations (or percent reductions) or all integrated 2-week dioxins/furans concentrations.

(c) *Records of exceedances.* Document all the following three items:

(1) Calendar dates whenever any of the seven pollutant or parameter levels recorded in paragraph (b) of this section or the opacity level recorded in paragraph (a)(1) of this section did not meet the emission limits or operating levels specified in this subpart.

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

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

(d) *Records of minimum data.*

Document three items:

(1) Calendar dates for which you did not collect the minimum amount of data required under §§ 60.6490 and 60.6565.

Record those dates for the following types of pollutants and parameters:

(i) Sulfur dioxide emissions.

(ii) Nitrogen oxides emissions.

(iii) Carbon monoxide emissions.

(iv) Load levels of your municipal waste combustor.

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

(vi) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance tests, the particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions.

(vii) If you elect to use continuous automated sampling systems for dioxins/furans or mercury, dates and times when the sampling systems were not operating or were not collecting a valid sample.

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

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

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

(1) Sulfur dioxide emissions.

(2) Nitrogen oxides emissions.

(3) Carbon monoxide emissions.

(4) Load levels of your municipal waste combustor.

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

(6) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or to elect to use continuous automated

sampling systems for dioxins/furans or mercury emissions, instead of conducting performance tests:

- (i) Particulate matter emissions data.
- (ii) Cadmium emissions data.
- (iii) Lead emissions data.
- (iv) Mercury emissions data.
- (v) Hydrogen chloride emissions data.
- (vi) Dioxins/furans emissions data.
- (f) *Records of drift and accuracy.*

Document the results of your daily drift tests and quarterly accuracy determinations according to the following:

(1) For sulfur dioxides, nitrogen oxides, and carbon monoxides, according to Procedure 1 of appendix F of this part. Keep the records for the sulfur dioxide, nitrogen oxides, and carbon monoxide continuous emissions monitoring systems.

(2) If you elect to continuously monitor particulate matter instead of conducting performance testing, according to Procedure 2, appendix F of this part. Keep the records for the particulate matter continuous emissions monitoring systems.

(3) If you elect to continuously monitor cadmium, lead, mercury, or hydrogen chloride instead of conducting performance testing, maintain the results of all quality evaluations, including daily drift tests and periodic accuracy determinations, specified in the approved site-specific performance evaluation test plan or as specified in Procedures 5 and 6 of appendix F of this part, as applicable.

(4) If you elect to use continuous automated sampling systems for dioxins/furans or mercury, the results of all quality evaluations specified in the approved site-specific performance evaluation test plan or Procedure 5 of appendix F of this part, as applicable.

(g) *Records of the relationship between oxygen and carbon dioxide.* If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, document the relationship between oxygen and carbon dioxide, as specified in § 60.6485.

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

(i) *Time system.* All continuous monitoring systems data must be recorded using “local time” for the location where the municipal waste combustor is located, unless the Administrator approves an alternative time system.

(j) *Additional recordkeeping for continuous cadmium, lead, mercury, or hydrogen chloride monitoring systems.* In addition to the requirements of paragraphs (a) through (i), if you elect to install a continuous emission monitoring system for cadmium, lead,

mercury, or hydrogen chloride, you must maintain the following additional records:

(1) All required continuous emission monitoring measurements (including monitoring data recorded during unavoidable continuous emission monitoring system breakdowns and out-of-control periods).

(2) The date and time identifying each period during which the continuous emission monitoring system was inoperative except for zero (low-level) and high-level checks.

(3) The date and time identifying each period during which the continuous emission monitoring system was out of control, as defined in § 60.6540.

(4) The date and time of commencement and completion of each period of excess emissions and parameter monitoring exceedances that occurs during warmups, startups, shutdowns, and malfunctions of the municipal waste combustor.

(5) The date and time of commencement and completion of each time period of excess emissions and parameter monitoring exceedances, that occurs during periods other than warmups, startups, shutdowns, and malfunctions of the municipal waste combustor.

(6) The nature and cause of any malfunction (if known).

(7) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions.

(8) The nature of the repairs or adjustments to the continuous emission monitoring system that was inoperative or out of control.

(9) All procedures that are part of a quality control program developed and implemented for the continuous emission monitoring system.

(10) When more than one continuous emission monitoring system is used to measure the emissions from one municipal waste combustor (e.g., multiple breechings, multiple outlets), record the results as required for each continuous emission monitoring system.

(k) *Additional recordkeeping for continuous automated sampling systems.* If you elect to install a continuous automated sampling system for dioxins/furans or mercury, you must maintain the following additional records:

(1) All required 24-hour integrated mercury concentration (or percent reduction) or 2-week integrated dioxins/furans concentration data (including any data obtained during unavoidable system breakdowns and out-of-control periods).

(2) The date and time identifying each period during which the continuous automated sampling system was inoperative.

(3) The date and time identifying each period during which the continuous automated sampling system was out of control.

(4) The date and time of commencement and completion of each period of excess emissions and parameter monitoring exceedances that occurs during warmups, startups, shutdowns, and malfunctions of the municipal waste combustor.

(5) The date and time of commencement and completion of each time period of excess emissions and parameter monitoring exceedances that occurs during periods other than warmups, startups, shutdowns, and malfunctions of the municipal waste combustor.

(6) The nature and cause of any malfunction (if known).

(7) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions.

(8) The nature of the repairs or adjustments to the continuous automated sampling system that was inoperative or out of control.

(9) All procedures that are part of a quality control program developed and implemented for the continuous automated sampling system.

(10) When more than one continuous automated sampling system is used to measure the emissions from one municipal waste combustor (e.g., multiple breechings, multiple outlets), record the results as required for each system.

§ 60.6600 What records must I keep for municipal waste combustors that use activated carbon?

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

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

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

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

(3) Average carbon feed rate in kilograms (or pounds) per hour

estimated for each hour of operation. Include supporting calculations in the records.

(4) Total carbon usage for each calendar quarter as estimated in § 60.6560(d). Include supporting calculations in the records.

(5) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).

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

(1) The calendar dates when the average carbon feed rate was less than the average hourly carbon feed rates determined during the most recent stack test for dioxins/furans or mercury emissions.

(2) Reasons for the low carbon feed rates.

(3) Corrective actions you took or are taking to meet the average carbon feed rate requirement.

(c) *Records of carbon injection system operating parameter indicators.* Document three items:

(1) Calendar dates for which the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) recorded are below the level(s) estimated during the performance tests.

(2) Reasons for the occurrences.

(3) Corrective actions you took or are taking to meet the levels estimated during the performance tests.

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

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

Model Rule—Reporting

§ 60.6605 What reports must I submit and in what form?

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

(b) Within 60 days after the date of completing each performance test or continuous emissions monitoring systems (CEMS) performance evaluation that includes a relative accuracy test audit (RATA), you must submit the results following the procedures specified in paragraph (e) of this section. Data collected using test methods and performance evaluations of CEMS measuring RATA pollutants that are supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website

(<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test or performance evaluation must be submitted in a file format generated using the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. Data collected using test methods and performance evaluations of CEMS measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test or performance evaluation must be included as an attachment in the ERT or an alternate electronic file.

(c) For the semiannual and annual reports specified under paragraph (a) of this section, beginning on March 10, 2027 or once the report template for this subpart has been available on the Compliance and Emissions Data Reporting Interface (CEDRI) website (<https://www.epa.gov/electronic-reporting-air-emissions/cedri>) for one year, whichever date is later, submit all subsequent reports using the appropriate electronic report template on the CEDRI website for this subpart and following the procedure specified in paragraph (e) of this section. The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

(d) If you are required to submit notifications or reports following the procedure specified in this paragraph (d), you must submit notifications or reports to the EPA via the CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information in the report or notification, you must submit a complete file in the format specified in this subpart, including information claimed to be CBI, to the EPA following the procedures in paragraphs (d)(1) and (2) of this section. Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed

except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in this paragraph (d).

(1) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqps_cbi@epa.gov, and as described above, should include clear CBI markings. ERT files should be flagged to the attention of the Branch Manager, Measurement Strategies Branch; all other files should be flagged to the attention of the Large Municipal Waste Combustor Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqps_cbi@epa.gov to request a file transfer link.

(2) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: OAQPS Document Control Officer (C404-02), OAQPS, U.S. Environmental Protection Agency, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North Carolina 27711. ERT files should be sent to the attention of the Branch Manager, Measurement Strategies Branch, and all other files should be sent to the attention of the Large Municipal Waste Combustor Sector Lead. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(e) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with that reporting requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in paragraphs (e)(1) through (7) of this section.

(1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

(2) The outage must have occurred within the period of time beginning five business days prior to the date that the submission is due.

(3) The outage may be planned or unplanned.

(4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(5) You must provide to the Administrator a written description identifying:

(i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

(f) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with that reporting requirement. To assert a claim of force majeure, you must meet the requirements outlined in paragraphs (f)(1) through (5) of this section.

(1) You may submit a claim if a *force majeure* event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a *force majeure* event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage).

(2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(3) You must provide to the Administrator:

(i) A written description of the *force majeure* event;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the *force majeure* event;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(4) The decision to accept the claim of *force majeure* and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(5) In any circumstance, the reporting must occur as soon as possible after the *force majeure* event occurs.

(g) Keep a copy of all reports required by §§ 60.6615, 60.6625, and 60.6640 onsite for 5 years.

(h) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride or to use continuous automated sampling systems for dioxins/furans or mercury emissions instead of conducting performance tests, notify the Administrator one month prior to starting or stopping use of the particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxins/furans continuous emission monitoring systems or continuous automated sampling systems.

(i) If you elect to install a continuous emission monitoring system for cadmium, lead, mercury, or hydrogen chloride, or you elect to install a continuous automated sampling system for dioxins/furans or mercury, you must also submit to EPA for approval, the site-specific monitoring plan, including the site-specific performance evaluation test plan for the continuous emission monitoring system or the continuous automated sampling system. You must maintain copies of the site-specific monitoring plan on record for the life of the municipal waste combustor to be made available for inspection, upon request, by the Administrator. If the site-specific monitoring plan is revised and approved, you must maintain the previous (i.e., superseded) versions of the plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan.

§ 60.6610 What are the appropriate units of measurement for reporting my data?

See Tables 2 and 3 to Subpart WWW for appropriate units of measurement.

§ 60.6615 When must I submit the initial performance test report?

As specified in § 60.8(a), submit your initial report by 180 days after your final compliance date.

§ 60.6620 What must I include in my initial performance test report?

You must include seven items:

(a) The emission levels measured on the date of the initial evaluation of your continuous emission monitoring systems for all of the following pollutants or parameters as recorded in accordance with § 60.6595(b).

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

(2) The 24-hour daily arithmetic average concentration of nitrogen oxides emissions.

(3) The 4-hour block or 24-hour daily arithmetic average concentration of carbon monoxide emissions, as applicable.

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

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

(6) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing, all 1-hour average concentrations of particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions.

(7) If you monitor emissions with a CEMS, you must indicate which data are CEMS data during warmup, startup, and shutdown.

(b) The results of the initial performance stack tests for eight pollutants or parameters (use appropriate units as specified in Table 3 to Subpart WWW):

(1) Dioxins/furans.

(2) Cadmium.

(3) Lead.

(4) Mercury.

(5) Opacity.

(6) Particulate matter.

(7) Hydrogen chloride.

(8) Fugitive ash.

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

(d) The initial performance evaluation of your continuous emissions monitoring systems. Use the applicable performance specifications in appendix

B of this part in conducting the evaluation.

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

(f) If your municipal waste combustor uses activated carbon to control dioxins/furans or mercury emissions, the average carbon mass feed rates that you recorded during the stack tests for dioxins/furans and mercury emissions. Include supporting calculations as specified in § 60.6660(a)(1) and (2).

(g) If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, documentation of the relationship between oxygen and carbon dioxide, as specified in § 60.6485.

§ 60.6625 When must I submit the annual report?

Submit the annual report no later than February 1 of each year that follows the calendar year in which you collected the data. If you have an operating permit for any unit under title V of the CAA you must submit semiannual reports. Parts 70 and 71 of this chapter contain program requirements for permits.

§ 60.6630 What must I include in my annual report?

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

(a) A list of the results achieved during the annual stack test, using appropriate units, for eight pollutants, as recorded under § 60.6590(a):

- (1) Dioxins/furans.
- (2) Cadmium.
- (3) Lead
- (4) Mercury.
- (5) Particulate Matter.
- (6) Opacity.
- (7) Hydrogen chloride.
- (8) Fugitive ash.

(b) List of the highest average levels recorded, in the appropriate units, for the following pollutants or parameters:

- (1) Sulfur dioxide emissions.
- (2) Nitrogen oxides emissions.
- (3) Carbon monoxide emissions.

(4) Load level of the municipal waste combustor.

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

(6) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, hydrogen chloride, or

dioxins/furans emissions instead of conducting performance testing:

- (i) Particulate matter emissions.
- (ii) Cadmium emissions.
- (iii) Lead emissions.
- (iv) Mercury emissions.
- (v) Hydrogen chloride emissions.
- (vi) Dioxins/furans emissions.

(c) For continuously monitored pollutants identified in paragraphs (b)(1) through (3) and (b)(6) of this section, a list of the block averages recorded during all operations for the reporting year, identifying measurements recorded during periods of warmup, startup, and shutdown as defined in this subpart.

(d) The highest 6-minute opacity level measured. Base the value on all 6-minute average opacity levels recorded by your continuous opacity monitoring system (§ 60.6595(a)(1)).

(e) The total number of hours per calendar quarter and hours per calendar year that you did not obtain valid data for the following pollutants or parameters. For each continuously monitored pollutant or parameter, the hours of valid emissions data per calendar quarter and per calendar year expressed as a percent of the hours per calendar quarter or year that the municipal waste combustor was operating and combusting municipal solid waste. Include data on:

- (1) Sulfur dioxide emissions.
- (2) Nitrogen oxides emissions.
- (3) Carbon monoxide emissions.
- (4) Load level of the municipal waste combustor.

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

(6) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, hydrogen chloride, or dioxins/furans emissions instead of conducting performance testing:

- (i) Particulate matter emissions.
- (ii) Cadmium emissions.
- (iii) Lead emissions.
- (iv) Mercury emissions.
- (v) Hydrogen chloride emissions.
- (vi) Dioxins/furans emissions.

(7) If you elect to use continuous automated sampling systems for dioxins/furans or mercury, the total number of hours per calendar quarter and hours per calendar year that the sampling systems were not operating or were not collecting a valid sample. Include the number of hours during which the continuous automated sampling system was operating and collecting a valid sample as a percent of hours per calendar quarter or year that the municipal waste combustor was operating and combusting municipal solid waste.

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

- (1) Sulfur dioxide emissions.
- (2) Nitrogen oxides emissions.
- (3) Carbon monoxide emissions.
- (4) Load level of the municipal waste combustor.

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

(6) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, hydrogen chloride, or dioxins/furans emissions instead of conducting performance testing:

- (i) Particulate matter emissions.
- (ii) Cadmium emissions.
- (iii) Lead emissions.
- (iv) Mercury emissions.
- (v) Hydrogen chloride emissions.
- (vi) Dioxins/furans emissions.

(7) If you elect to use continuous automated sampling systems for dioxins/furans or mercury, the total number of hours that the data for mercury and dioxins/furans were excluded from the calculation of average emission concentrations or parameters.

(g) A summary of the data in paragraphs (a) through (g), excluding (c), of this section from the year preceding the reporting year which gives the Administrator a summary of the performance of the municipal waste combustor over a 2-year period.

(h) A summary of any emission or parameter level, including the information specified in paragraphs (a) through (f) of this section, that did not meet the limits specified in this subpart.

(i) A notice of your intent to begin a reduced stack testing schedule for dioxins/furans emissions during the following calendar year if you are eligible for alternative scheduling (§ 60.6535(a) or (b)).

(j) A notice of your intent to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels to similarly designed and equipped units on site. (§ 60.6535(c)).

(k) If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, documentation of the relationship between oxygen and carbon dioxide, as specified in § 60.6485.

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

§ 60.6635 What must I do if I am out of compliance with the requirements of this subpart?

You must submit a semiannual report on any recorded emission or parameter

level that does not meet the requirements specified in this subpart.

§ 60.6640 If a semiannual report is required, when must I submit it?

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

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

§ 60.6645 What must I include in the semiannual out-of-compliance reports?

You must include all of the following three items in the semiannual report:

(a) For any of the pollutants or parameters listed in paragraphs (a)(1)–(8) of this section that exceeded the limits specified in this subpart, include the calendar date they exceeded the limits, the reasons for exceeding the limits, and your corrective actions. You must also include the averaged and recorded data for that date:

- (1) Concentration of sulfur dioxide emissions.
- (2) Concentration of nitrogen oxides emissions.
- (3) Concentration of carbon monoxide emissions.
- (4) Load level of your municipal waste combustor.
- (5) Temperature of the flue gases at the inlet of your particulate matter air pollution control device.
- (6) Average 6-minute opacity level. The data obtained from your continuous opacity monitoring system are not used to determine compliance with the limit on opacity emissions.
- (7) If you elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing:
 - (i) Concentration of particulate matter emissions.
 - (ii) Concentration of cadmium emissions.
 - (iii) Concentration of lead emissions.
 - (iv) Concentration of mercury emissions.
 - (v) Concentration of hydrogen chloride emissions.
- (8) If you elect to use a continuous automated sampling system to monitor mercury or dioxins/furans instead of conducting performance testing, the integrated 24-hour mercury concentrations (or percent reductions) or the integrated 2-week dioxins/furans concentration.

(b) If the results of your annual stack tests (as recorded in § 60.6590(a)) show emissions above the limits specified in Table 3 to Subpart WWW as

applicable for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash, include a copy of the test report that documents the emission levels and your corrective actions. The semiannual report shall contain a statement indicating that pollutant levels were exceeded during the performance test and list the pollutants whose limits were exceeded and a copy of the performance test is no longer required.

(c) For municipal waste combustors that apply activated carbon to control dioxins/furans or mercury emissions, include documentation of all dates when the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (*e.g.*, screw feeder speed) are below the levels established during the most recent mercury and dioxins/furans stack test (as specified in § 60.6600(a)(1)). Include four items:

- (1) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation.
- (2) Reasons for occurrences of low carbon feed rates.
- (3) The corrective actions you have taken to meet the carbon feed rate requirement.
- (4) The calendar date.
- (d) If you elect to install a continuous emission monitoring system for cadmium, lead, mercury, or hydrogen chloride, or you elect to install a continuous automated sampling system for dioxins/furans or mercury, submit information concerning all out-of-control periods for each continuous emission monitoring system or each continuous automated sampling system, including start and end dates and hours and descriptions of corrective actions taken.

§ 60.6650 Can reporting dates be changed?

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

Model Rule—Air Curtain Incinerators That Burn 100 Percent Wood Waste, Clean Lumber, and Yard Waste

§ 60.6655 What is an air curtain incinerator?

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

§ 60.6660 What is yard waste?

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

(a) Construction, renovation, and demolition wastes that are exempt from the definition of “municipal solid waste” in § 60.6685.

(b) Clean wood that is exempt from the definition of “municipal solid waste” in § 60.6685.

§ 60.6665 What are the emission limits for air curtain incinerators that burn 100 percent wood waste, clean lumber, and/or yard waste?

If your air curtain incinerator with a capacity to combust greater than 250 tons per day of municipal solid waste combusts a fuel feed stream of 100 percent wood waste, 100 percent clean lumber, 100 percent yard waste, or a 100 percent mixture of only wood waste, clean lumber, and/or yard waste, and no other municipal solid waste materials, you must only meet the emission limits in this section.

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

- (1) The opacity limit is 10 percent (6-minute average) except as provided in paragraph (a)(2) of this section.
- (2) The opacity limit is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.

(b) Reserved

§ 60.6670 How must I monitor opacity for air curtain incinerators that burn 100 percent wood waste, clean lumber, and/or yard waste?

(a) Use the procedures specified in Table 5 to Subpart WWW to determine compliance with the opacity limit for air curtain incinerators under § 60.6665.

(b) Conduct an initial test for opacity as specified in § 60.8 of subpart A of this part.

(c) After the initial test for opacity, conduct annual tests (no less than 9 calendar months and no more than 15 calendar months following the previous test). You must complete five performance tests in each 5-year calendar period.

§ 60.6675 What are the recordkeeping and reporting requirements for air curtain incinerators that burn 100 percent wood waste, clean lumber, and/or yard waste?

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

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

(2) Your planned initial startup date.

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

(4) The capacity of your incinerator, including supporting capacity calculations, as specified in § 60.6570.

(b) Keep records of results of the initial opacity performance test and all subsequent opacity performance tests onsite in either paper copy or electronic format unless the Administrator approves another format.

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

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

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

(f) Submit reports in either paper copy or electronic format on or before the applicable submittal date.

(g) If the Administrator agrees, you may change the annual reporting dates (see § 60.19(c)).

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

Equations

§ 60.6680 What equations must I use?

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

Equation 1 to Paragraph (a)

$$C_{7\%} = C_{unc} * (13.9 / (20.9 - C_{O_2})) \text{ (Eq. 1)}$$

Where:

$C_{7\%}$ = concentration corrected to 7 percent oxygen.

C_{unc} = uncorrected pollutant concentration.

C_{O_2} = concentration of oxygen (percent).

(b) *Quarterly carbon usage.* If you use activated carbon to comply with the dioxins/furans or mercury limits, calculate the required quarterly usage of carbon using equation 2 of this section for facility basis or equation 3 of this section for unit basis:

(1) Plant basis.

Equation 2 to Paragraph (b)(1)

$$C = \sum_{i=1}^n f_i * h_i \text{ (Eq. 2)}$$

Where:

C = required quarterly carbon usage for the facility in kilograms (or pounds).

f_i = required carbon feed rate for the municipal waste combustor in kilograms (or pounds) per hour. That is the average carbon feed rate during the most recent mercury or dioxins/furans stack tests (whichever has a higher feed rate).

h_i = number of hours the municipal waste combustor was in operation during the calendar quarter (hours).

n = number of municipal waste combustors, i, located at your plant.

(2) Unit basis.

Equation 3 to Paragraph (b)(2)

$$C = f * h \text{ (Eq. 3)}$$

Where:

C = required quarterly carbon usage for the unit in kilograms (or pounds).

f = required carbon feed rate for the municipal waste combustor in kilograms (or pounds) per hour. That is the average carbon feed rate during the most recent mercury or dioxins/furans stack tests (whichever has a higher feed rate).

H = number of hours the municipal waste combustor was in operation during the calendar quarter (hours).

(c) *Percent Reduction.* If you opt to comply with the alternative percent reduction standards for hydrogen chloride, mercury or sulfur dioxide, use the following equation to calculate the percent reduction:

Equation 4 to Paragraph (c)

$$\%P_{(HCl, Hg, SO_2)} = (E_i - E_o) / E_i * 100 \text{ (Eq. 4)}$$

Where:

$\%P_{(HCl, Hg, SO_2)}$ = percent reduction of pollutant being measured, either hydrogen chloride, mercury or sulfur dioxide

E_i = emission concentration of measured pollutant at inlet to the applicable control device, corrected to 7 percent oxygen (dry basis)

E_o = emission concentration of measured pollutant at the outlet of the applicable control device, corrected to 7 percent oxygen (dry basis)

Definitions

§ 60.6685 What definitions apply to this subpart?

Terms used but not defined in this section are defined in the CAA and in subparts A and Ba of this part.

Administrator means:

(1) For approved and effective state plans, the Director of the state air pollution control agency, or employee of the state air pollution control agency that is delegated the authority to perform the specified task;

(2) For federal plans, the Administrator of the EPA, an employee of the EPA, the Director of the state air pollution control agency, or employee of the state air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task; and

(3) For NSPS, the Administrator of the EPA, an employee of the EPA, the Director of the state air pollution control agency, or employee of the state air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task.

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

Batch municipal waste combustor means a municipal waste combustor designed so it cannot combust

municipal solid waste continuously 24 hours per day because the design does not allow waste to be fed to the unit or ash to be removed during combustion.

Bubbling fluidized bed combustor means a fluidized bed combustor in which the majority of the bed material remains in a fluidized state in the primary combustion zone.

Calendar quarter means a consecutive 3-month period (nonoverlapping) beginning on January 1, April 1, July 1, and October 1.

Calendar year means the period including 365 days starting January 1 and ending on December 31.

CEMS means continuous emissions monitoring system.

CEMS data during warmup, startup, and shutdown means CEMS data collected during periods of operation defined within this subpart as warmup, startup or shutdown.

Chief facility operator means the person in direct charge and control of the operation of a municipal waste combustor and who is responsible for

daily onsite supervision, technical direction, management, and overall performance of the facility.

Circulating fluidized bed combustor means a fluidized bed combustor in which the majority of the fluidized bed material is carried out of the primary combustion zone and is transported back to the primary zone through a recirculation loop.

Clean wood means untreated wood or untreated wood products including clean or untreated lumber (as defined in this subpart), tree stumps (whole or chipped), and tree limbs (whole or chipped). Clean wood does not include yard waste, which is defined elsewhere in this section, wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or construction, renovation, and demolition wastes (including but not limited to railroad ties and telephone poles), which are exempt from the definition of municipal solid waste in this section.

Cofired combustor means a unit combusting municipal solid waste with nonmunicipal solid waste fuel (e.g., coal, industrial process waste) and subject to a federally enforceable permit limiting the unit to combusting a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal solid waste as measured on a calendar quarter basis.

Continuous automated sampling system means the total equipment and procedures for automated sample collection and sample recovery/analysis to determine a pollutant concentration or emission rate by collecting a single or multiple integrated sample(s) of the pollutant (or diluent gas) for subsequent on- or off-site analysis; integrated sample(s) collected are representative of the emissions for the sample time as specified by the applicable requirement.

Continuous emission monitoring system means a monitoring system that continuously measures the emissions of a pollutant from an affected facility.

Dioxins/furans mean tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans. For the purposes of this subpart, dioxins/furans emission limits are expressed on a total mass basis.

Digital camera opacity technique conditions mean the following four conditions that must be followed if ASTM D7520-16, "Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere" (incorporated by reference, see § 60.17), is used as an alternative to EPA Method 9:

(1) During the digital camera opacity technique (DCOT) certification procedure outlined in section 9.2 of ASTM D7520-16, you or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).

(2) You must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in section 8.1 of ASTM D7520-16.

(3) You must follow the record keeping procedures outlined in 40 CFR 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.

(4) You or the DCOT vendor must have a minimum of 4 independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of anyone reading and the average error must not exceed 7.5 percent opacity.

EPA means the Administrator of the U.S. EPA or employee of the U.S. EPA who is delegated to perform the specified task.

Federally enforceable means all limitations and conditions that are enforceable by EPA including the requirements of 40 CFR part 60, 40 CFR part 61, and 40 CFR part 63, requirements within any applicable state implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.165 and 40 CFR 51.166.

First half of the calendar year means the period starting on January 1 and ending on June 30 in any year.

Four-hour block average or 4-hour block average means the average of all hourly emission concentrations when the affected facility is operating and combusting municipal solid waste measured over 4-hour periods from:

- (1) 12:00 midnight to 4:00 a.m.
- (2) 4:00 a.m. to 8:00 a.m.
- (3) 8:00 a.m. to 12:00 noon.
- (4) 12:00 noon to 4:00 p.m.
- (5) 4:00 p.m. to 8:00 p.m.
- (6) 8:00 p.m. to 12:00 midnight.

Mass burn refractory municipal waste combustor means a field-erected combustor that combusts municipal solid waste in a refractory wall furnace. Unless otherwise specified, this includes combustors with a cylindrical rotary refractory wall furnace.

Mass burn rotary waterwall municipal waste combustor means a field-erected combustor that combusts municipal solid waste in a cylindrical rotary waterwall furnace or on a tumbling-tile grate.

Mass burn waterwall municipal waste combustor means a field-erected combustor that combusts municipal solid waste in a waterwall furnace.

Materials separation plan means a plan that identifies both a goal and an approach for separating certain components of municipal solid waste for a given service area in order to make the separated materials available for recycling. A materials separation plan may include elements such as dropoff facilities, buy-back or deposit-return incentives, curbside pickup programs, or centralized mechanical separation systems. A materials separation plan may include different goals or approaches for different subareas in the service area, and may include no materials separation activities for certain subareas or, if warranted, an entire service area.

Maximum demonstrated municipal waste combustor load means the highest 4-hour arithmetic average municipal waste combustor load achieved during four consecutive hours during the most recent dioxins/furans performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified under § 60.6450.

Maximum demonstrated particulate matter control device temperature means the highest 4-hour arithmetic average flue gas temperature measured at the particulate matter control device inlet during four consecutive hours during the most recent dioxins/furans performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified under § 60.6450.

Modification or modified municipal waste combustor means a municipal waste combustor you have changed after September 10, 2026 and that meets one of two criteria:

(1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of construction and installation the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs.

(2) Any physical change in the municipal waste combustor or change in the method of operating the municipal waste combustor that increases the amount of any air pollutant emitted by the unit for which standards have been established under section 129 or section

111 of the CAA. Increases in the amount of any air pollutant emitted by the municipal waste combustor are determined when the municipal waste combustor operates at 100 percent of its physical load capability and are measured downstream of all air pollution control devices. Load restrictions based on permits or other nonphysical operational restrictions cannot be considered in the determination.

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

Modular starved-air municipal waste combustor means a combustor that combusts municipal solid waste, is not field-erected, and has multiple combustion chambers in which the primary combustion chamber is designed to operate at substoichiometric conditions.

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

- (1) Yard waste;
- (2) Refuse-derived fuel; and
- (3) Motor vehicle maintenance materials limited to vehicle batteries and tires except as specified in § 60.6305(d).

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

(1) Municipal waste combustors do not include pyrolysis or combustion units located at a plastics or rubber recycling unit as specified under Applicability (§ 60.6305(h) and (i)). Municipal waste combustors also do not include cement kilns firing municipal solid waste as specified under Applicability (§ 60.6305(j)). Municipal waste combustors also do not include internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.

(2) The boundaries of a municipal waste combustor are defined as follows. The municipal waste combustor includes, but is not limited to, the municipal solid waste fuel feed system, grate system, flue gas system, bottom ash system, and the combustor water system. The municipal waste combustor boundary starts at the municipal solid waste pit or hopper and extends through three areas:

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

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

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

(3) The municipal waste combustor does not include air pollution control equipment, the stack, water treatment equipment, or the turbine-generator set.

Municipal waste combustor capacity means the maximum charging rate of a municipal waste combustor expressed in tons per day of municipal solid waste combusted, calculated according to the procedures under § 60.6570. Section 60.6570 includes procedures for determining municipal waste combustor

capacity for continuous and batch feed municipal waste combustors.

Municipal waste combustor load means the steam load of the municipal waste combustor measured as specified in § 60.6550.

Particulate matter means total particulate matter emitted from municipal waste combustors as measured using EPA Reference Method 5 (see § 60.6530).

Plastics/rubber recycling unit means an integrated processing unit for which plastics, rubber, or rubber tires are the only feed materials (incidental contaminants may be in the feed materials). The feed materials are processed into a chemical plant feedstock or petroleum refinery feedstock, where the feedstock is marketed to and used by a chemical plant or petroleum refinery as input feedstock. The following three criteria further define a plastics/rubber recycling unit:

(1) Each calendar quarter, the combined weight of the chemical plant feedstock and petroleum refinery feedstock that a plastics/rubber recycling unit produces must be more than 70 percent of the combined weight of the plastics, rubber, and rubber tires that the plastics/rubber recycling unit processes.

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

(3) The plastics, rubber, and rubber tires fed to the plastics/rubber recycling unit may contain incidental contaminants (*e.g.*, paper labels on plastic bottles, metal rings on plastic bottle caps).

Pulverized coal/refuse-derived fuel mixed fuel-fired combustor means a combustor that fires coal and refuse-derived fuel simultaneously, in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the unit where it is fired in suspension. This includes both conventional pulverized coal and micropulverized coal.

Pyrolysis/combustion unit means a unit that produces gases, liquids, or solids by heating municipal solid waste. The gases, liquids, or solids produced are combusted and the emissions vented to the atmosphere.

Reconstruction means rebuilding a municipal waste combustor for which the reconstruction commenced after September 10, 2026 and the cumulative

costs of the construction over the life of the unit exceed 50 percent of the original cost of construction and installation of the unit (not including any cost of land purchased in connection with such construction or installation) updated to current costs (current dollars).

Refractory unit or refractory wall furnace means a combustion unit that has no energy recovery (e.g., via a waterwall) in the furnace (i.e., radiant heat transfer section) of the combustor.

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

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

(2) Pelletized refuse-derived fuel.

Refuse-derived fuel stoker means a steam generating unit that combusts refuse-derived fuel in a semisuspension firing mode using air-fed distributors.

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

Second half of the calendar year means the period starting July 1 and ending on December 31 in any year.

Semi-suspension refuse-derived fuel-fired combustor/wet refuse-derived fuel process conversion means a combustion unit that was converted from a wet refuse-derived fuel process to a dry refuse-derived fuel process, and because of constraints in the design of the system, includes a low furnace height

(less than 60 feet between the grate and the roof) and a high waste capacity-to-undergrate air zone ratio (greater than 300 tons of waste per day (tpd) fuel per each undergrate air zone).

Shift supervisor means the person who is in direct charge and control of operating a municipal waste combustor and who is responsible for onsite supervision, technical direction, management, and overall performance of the municipal waste combustor during an assigned shift.

Shutdown means the period of time following cessation of charging waste to the combustion grate prior to entering a period where the municipal waste combustor is not operating. Shutdown may be claimed for up to three hours of operation per occurrence.

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

Spreader stoker fixed floor refuse-derived fuel-fired combustor/100 percent coal capable means a spreader stoker type combustor with a fixed floor grate design that typically fires 100 percent refuse-derived fuel but is equipped to burn 100 percent coal instead of refuse-derived fuel to fulfill 100 percent steam or energy demand.

Standard conditions means a temperature of 20 °C and a pressure of 101.3 kilopascals.

Startup means the period of time after warmup when waste is introduced to the combustion grate but prior to steady state operation. Startup may be claimed for up to three hours of operation per occurrence.

Total mass dioxins/furans or total mass means the total mass of tetra-through octa-chlorinated dibenzo-p-dioxins and dibenzofurans as determined using EPA Reference Method 23 and the procedures specified in § 60.6530.

Tumbling-tile means a grate tile hinged at one end and attached to a ram at the other end. When the ram extends, the grate tile rotates around the hinged end.

Twenty-four hour daily average or 24-hour daily average means either the arithmetic mean or geometric mean (as specified) of all hourly emission concentrations when the affected facility operates and combusts municipal solid waste measured over a 24-hour period between 12:00 midnight and the following midnight.

Untreated lumber or clean lumber means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Untreated lumber does not include wood products that have been painted, pigment-stained, or “pressure-treated”. Pressure-treating compounds include, but are not limited to, chromate copper arsenate, pentachlorophenol, and creosote.

Warmup means the period of time during the first hours of a municipal waste combustor operation from a cold start until waste is fed to the combustor and has no time constraints. No waste is introduced to the combustion grate during warmup.

Waterwall furnace means a combustion unit having energy (heat) recovery in the furnace (i.e., radiant heat transfer section) of the combustor.

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

(1) Construction, renovation, and demolition wastes that are exempt from the definition of “municipal solid waste” in this section.

(2) Clean wood that is exempt from the definition of “municipal solid waste” in this section.

TABLE 1 TO SUBPART WWW OF PART 60—MODEL RULE—COMPLIANCE SCHEDULES AND INCREMENTS OF PROGRESS

Affected units	Increment 1 (submit final control plan)	Increment 2 (award contracts)	Increment 3 (begin onsite construction)	Increment 4 (complete onsite construction)	Increment 5 (final compliance)
1. All municipal waste combustors. ^a	(Dates to be specified in state plan).	(Dates to be specified in state plan).	(Dates to be specified in state plan).	(Dates to be specified in state plan).	(Dates to be specified in state plan). ^b

^a Plant 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 March 10, 2031.

TABLE 2 TO SUBPART WWW—MUNICIPAL WASTE COMBUSTOR CARBON MONOXIDE GUIDELINES
[Parts per million by volume]

Municipal waste combustor technology	The following emission limits and averaging times apply . . .	
	Carbon monoxide emission limit (parts per million by volume) ^a	Averaging time (hours) ^b
Mass burn waterwall	100	4
Mass burn refractory	100	4
Mass burn rotary refractory	110	24
Mass burn rotary waterwall	110	24
Modular starved air	50	4
Modular excess air	50	4
Refuse-derived fuel stoker	110	24
Fluidized bed, mixed fuel (wood/refuse-derived fuel)	110	24
Bubbling fluidized bed combustor	100	4
Circulating fluidized bed combustor	100	4
Pulverized coal/refuse-derived fuel mixed fuel-fired combustor	110	4
Spreader stoker coal/refuse-derived fuel mixed fuel-fired combustor	110	24
Semi-suspension refuse-derived fuel-fired combustor/wet refuse-derived fuel process conversion	250	^c 24
Spreader stoker fixed floor refuse-derived fuel-fired combustor/100 percent coal capable	250	^c 24

^a Measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen (dry basis). Calculated as an arithmetic average. CEMS data during warmup, startup, and shutdown, as defined in this subpart, are not corrected to 7 percent oxygen, and are used as measured. The averaging times are specified in greater detail in § 60.6495(b).

^b Averaging times are 4-hour or 24-hour block arithmetic averages.

^c 24-hour block average, geometric mean.

TABLE 3 TO SUBPART WWW OF PART 60—MODEL RULE—EMISSION LIMITS FOR EXISTING LARGE MUNICIPAL WASTE COMBUSTORS

For the air pollutant . . .	For this combustor type . . .	You must meet this emission limit, corrected to 7 percent oxygen ^a . . .
Particulate matter	All	20 mg/dscm.
Opacity	All	10 percent opacity (6-minute block average).
Cadmium	All	10 ug/dscm.
Lead	All	68 ug/dscm.
Mercury	All	50 ug/dscm or 85 percent reduction by weight.
Sulfur dioxide	All	22 parts per million by volume dry basis or 75 percent reduction by weight or volume (daily 24-hr geometric average).
Nitrogen oxide ^b	Mass burn waterwall	205 parts per million by volume dry basis (daily 24-hr arithmetic average).
	Mass burn rotary	150 parts per million by volume dry basis (daily 24-hr arithmetic average).
	Refuse-derived fuel stoker	160 parts per million by volume dry basis (daily 24-hr arithmetic average).
	Refuse-derived fuel spreader stoker and semi-suspension.	160 parts per million by volume dry basis (daily 24-hr arithmetic average).
	Refuse-derived fuel fluidized bed	180 parts per million by volume dry basis (daily 24-hr arithmetic average).
Hydrogen chloride	All	10 parts per million by volume dry basis or 96 percent reduction by weight or volume.
Dioxins/furans	All	14 nanograms per dry standard cubic meter (total mass).

^a CEMS data during warmup, startup, and shutdown, as defined in this subpart, are not corrected to 7 percent oxygen and are used as measured.

^b Existing mass burn waterwall units equipped with air-to-air heat exchanger flue gas reheat in advance of a selective catalytic reduction control device are subject to a 50 parts per million by volume dry basis emission limit.

TABLE 4 TO SUBPART WWWW OF PART 60—REQUIREMENTS FOR CONTINUOUS EMISSION MONITORING SYSTEMS (CEMS)

For the following pollutants	Use the following span values for your CEMS	Use the following performance specifications for your CEMS	During each relative accuracy test run, use the following methods to collect concurrent data
1. Particulate Matter		For operation and correlation test, P.S. 11 in appendix B of this part and procedure 2 of appendix F to this part. For quarterly accuracy determinations, daily calibration drift tests, and each response correlation audit or relative response audit, procedure 2 of appendix F to this part.	Follow the test methods in Table 5 to Subpart WWWW.
2. Nitrogen Oxides	Control device outlet: 125 percent of the maximum estimated hourly nitrogen oxides emissions of the municipal waste combustor.	For operation, P.S. 2 in appendix B of this part and procedure 1 in appendix F of this part. For relative accuracy audit, P.S. 2 in appendix B of this part and procedure 1 of appendix F of this part. For quarterly accuracy determinations and daily calibration drift tests, procedure 1 in appendix F of this part.	Method 7, 7A, 7C, 7D, or 7E in appendix A-4 to part 60 of this chapter.
3. Sulfur Dioxide	Control device outlet: 50 percent of the maximum estimated hourly sulfur dioxide emissions of the municipal waste combustor.	For operation, P.S. 2 in appendix B of this part. For relative accuracy audit, P.S. 2 in appendix B of this part and procedure 1 of appendix F of this part. For quarterly accuracy determinations and daily calibration drift tests, procedure 1 in appendix F of this part.	Method 6, 6A, or 6C, in appendix A-4 to part 60 of this chapter.
4. Carbon Monoxide	125 percent of the maximum estimated hourly carbon with monoxide emissions of the municipal waste combustor.	For operation, P.S. 4A in appendix B of this part and procedure 1 of appendix F of this part. For relative accuracy audit, P.S. 4A in appendix B of this part and procedure 1 of appendix F of this part. For quarterly accuracy determinations and daily calibration drift tests, procedure 1 in appendix F of this part.	Method 10, 10A, or 10B in appendix A-4 to part 60 of this chapter.
5. Oxygen or Carbon Dioxide.	25 percent oxygen or 20 percent carbon dioxide.	P.S. 3 in appendix B of this part	Method 3A or 3B in appendix A-2 to part 60 of this chapter, or, as an alternative for oxygen or carbon dioxide correction, the manual method portion of ASME PTC-19-10-1981—part 10.
6. Mercury	Follow the approved site-specific monitoring plan.	For operation, P.S. 12A in appendix B of this part and procedure 5 of appendix F of this part or the approved site-specific monitoring plan. For relative accuracy audit, daily calibration, weekly system integrity check, quarterly audit, procedure 5 of appendix F of this part.	Follow the test methods in Table 5 to Subpart WWWW.
7. Hydrogen chloride	Follow the approved site-specific monitoring plan.	For operation, P.S. 18 in appendix B of this part and procedure 6 of appendix F of this part or the approved site-specific monitoring plan. For relative accuracy audit, daily calibration, quarterly audit, and other applicable quality assurance/quality control checks procedure 6 of appendix F of this part.	Follow the test methods in Table 5 to Subpart WWWW, except you may also use Methods 320 or 321 of appendix A to part 63.
8. Cadmium or Lead	Follow the approved site-specific monitoring plan.	For operation, the approved site-specific monitoring plan.	Follow the test methods in Table 5 to Subpart WWWW.

TABLE 5 TO SUBPART WWW—PERFORMANCE TEST REQUIREMENTS FOR COMPLIANCE WITH EMISSIONS LIMITS UNDER § 60.6450

To determine compliance with the . . .	You must conduct a performance test to . . .	Using . . .
Particulate matter emission limits.	1. Select sampling ports location and the number of traverse points . . . 2. Determine oxygen and carbon dioxide concentrations of the stack gas . . . 3. Measure the particulate matter emission concentration to determine compliance with the particulate matter emission limit to part 60 of this chapter . . .	Method 1 in appendix A–1 to part 60 of this chapter. Method 3A or 3B in appendix A–2 to part 60 of this chapter, or as an alternative the manual method portion of ASME PTC–19–10–1981—part 10. Method 5 in appendix A–3 to part 60 of this chapter. Collect a minimum sample volume of 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run. Method 9 of appendix A–4 of part 60 to this chapter, except as provided under § 60.11(e) of subpart A of this part, or as an alternative ASTM D7520–16 provided the digital camera opacity technique conditions, as defined in this subpart, are met.
Opacity emission limits	Determine compliance with the opacity limit in Table 3 to Subpart WWW . . .	Method 1 in appendix A–1 to part 60 of this chapter.
Cadmium or lead emission limits.	1. Select sampling ports location and the number of traverse points. 2. Determine oxygen and carbon dioxide concentrations of the stack gas for flue gas analysis . . . 3. Measure the cadmium or lead emission concentration to determine compliance with the emission limits . . .	Method 1 in appendix A–1 to part 60 of this chapter. Method 3A or 3B in appendix A–2 to part 60 of this chapter, or as an alternative the manual method portion of ASME PTC–19–10–1981—part 10. Method 29 in appendix A–8 to part 60 of this chapter. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for cadmium and lead required.
Mercury emission limits	1. Select sampling ports location and the number of traverse points . . . 2. Determine oxygen and carbon dioxide concentrations of the stack gas for flue gas analysis . . . 3. Measure the mercury emission concentration to determine compliance with the emission limits . . .	Method 1 in appendix A–1 to part 60 of this chapter. Method 3A or 3B in appendix A–2 to part 60 of this chapter, or as an alternative the manual method portion of ASME PTC–19–10–1981—part 10. Method 29 in appendix A–8 to part 60 of this chapter or as an alternative ASTM D6784–24. Collect a minimum sample volume of 1.7 cubic meters. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for mercury required.
Sulfur dioxide emission limits	Calculate the 24-hr daily geometric average sulfur dioxide emission concentration . . .	Method 19, section 12.4.3, in appendix A–7 to part 60 of this chapter.
Hydrogen chloride emission limits.	Measure the hydrogen chloride emission concentration . . .	Method 26 or 26A in appendix A–8 of part 60 to this chapter, as applicable. The minimum sampling time shall be 1 hour. An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 26 or 26A test run for hydrogen chloride.
Dioxins/furans emission limits ...	1. Select sampling ports location and the number of traverse points . . . 2. Determine oxygen and carbon dioxide concentrations of the stack gas for flue gas analysis . . . 3. Measure the dioxins/furans emission concentration to determine compliance with the emission limits . . .	Method 3, 3A or 3B in appendix A–2 to part 60 of this chapter, or as an alternative ASME PTC–19–10–1981—part 10. Method 23 in appendix A–7 to part 60 of this chapter. The minimum sampling time shall be 4 hours. An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 23 test run for dioxins/furans.
Nitrogen oxides emission limits	Determine the daily arithmetic average nitrogen oxides emission concentration.	Method 19, section 12.4.1, in appendix A–7 to part 60 of this chapter.
Fugitive ash emission limits	Measure fugitive ash emissions . . .	Method 22 in appendix A–7 to part 60 of this chapter. The minimum observation time shall be a series of three 1-hour observations. The observation period shall include times when the facility is transferring ash from the municipal waste combustor to the area where ash is stored or loaded into containers or trucks.
Opacity limit for air curtain incinerators under § 60.6665.	Determine compliance with the opacity limit in § 60.6665.	Method 9 of appendix A–4 of part 60 to this chapter, or as an alternative ASTM D7520–16 provided the digital camera opacity technique conditions, as defined in this subpart, are met.