



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA-HQ-OAR-2018-0794; FRL-10011-53-OAR]

RIN 2060-AU70

Mercury and Air Toxics Standards for Power Plants Electronic Reporting Revisions

AGENCY: Environmental Protection Agency (EPA)

ACTION: Final rule

SUMMARY: The U.S Environmental Protection Agency (EPA) is finalizing amendments to the electronic reporting requirements for the National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units (also known as the Mercury and Air Toxics Standards (MATS)). This action revises and streamlines the electronic data reporting requirements of MATS, increases data transparency by requiring use of one electronic reporting system instead of two separate systems, and provides enhanced access to MATS data. No new monitoring requirements are imposed by this final action; instead, this action reduces reporting burden, increases MATS data flow and usage, makes it easier for inspectors and auditors to assess compliance, and encourages wider use of continuous emissions monitoring systems (CEMS) for MATS compliance. In addition, this final action extends the current deadline for alternative electronic data submission via portable document format (PDF) files through December 31, 2023.

DATES: This final rule is effective on **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-

HQ-OAR-2018-0794. 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 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/>. Out of an abundance of caution for members of the public and our staff, the EPA Docket Center and Reading Room was closed to the public, with limited exceptions, to reduce the risk of transmitting COVID-19. Our Docket Center staff will continue to provide remote customer service via email, phone, and webform. For further information and updates on EPA Docket Center services and the current status, please visit us online at <https://www.epa.gov/dockets>.

FOR FURTHER INFORMATION CONTACT: Mr. Barrett Parker, Sector Policies and Programs Division (D243-05), Office of Air Quality Planning and Standards, U.S.

Environmental Protection Agency, Research Triangle Park, NC 27711; telephone number: (919) 541-5635; email address: parker.barrett@epa.gov. For general information concerning MATS, contact Ms. Mary Johnson, Sector Policies and Programs Division (D243-01), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711; telephone number: (919) 541-5025; email address: johnson.mary@epa.gov. For questions concerning the Emissions Collection and Monitoring Plan System (ECMPS) Client Tool and its implementation, contact Mr. Christopher Worley, Clean Air Markets Division, Mail Code 6204M, U.S. Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460; telephone number: (202) 343-9531; email address: worley.christopher@epa.gov.

SUPPLEMENTARY INFORMATION: The information in this preamble is organized as follows:

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I. General Information

A. Does this action apply to me?

Categories and entities potentially affected by this action include:

Category	NAICS code ¹	Examples of potentially regulated entities.
Industry	221112	Fossil fuel-fired electric utility steam generating units (EGUs).
Federal government	221122 ²	Fossil fuel-fired EGUs owned by the federal government.
State/local/tribal government	221122 ² 921150	Fossil fuel-fired EGUs owned by municipalities. Fossil fuel-fired EGUs in Indian country.

¹ North American Industry Classification System.

² Federal, state, or local government-owned and operated establishments are classified according to the activity in which they are engaged.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that the EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your entity is regulated by this action, you should carefully examine the applicability criteria in 40 CFR 63.9981 of the rule. If you have questions regarding the applicability of this action to a particular entity, consult either the air permitting authority for the entity or your EPA Regional representative as listed in 40 CFR 63.13.

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

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/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants>. Following publication in the **Federal Register**, the EPA will post the **Federal Register** 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 by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. 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. Environmental Protection Agency, 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. Environmental Protection Agency, 1200 Pennsylvania Ave., NW, Washington, DC 20460.

D. What action is the Agency taking?

The EPA is finalizing this rule to streamline the electronic data reporting requirements of MATS; to increase data transparency by making more of the MATS data available in Extensible

Markup Language (XML) format; and to amend the reporting and recordkeeping requirements associated with performance stack tests, particulate matter (PM) and hydrogen chloride (HCl) CEMS, and PM continuous parameter monitoring systems (CPMS).

E. What is the Agency's authority for taking this action?

The Agency's authority for taking this action is found at 42 U.S.C. 7401 *et seq.*

F. What are the incremental costs and benefits of this action?

As discussed in section VI.C of this preamble, this action is expected to reduce overall annual source burden by 11,000 hours per year, which when monetized is \$15,079,000.

II. Background

These amendments revise the recordkeeping and reporting requirements of the MATS rule, in response to concerns raised by the regulated community. The MATS rule originally required affected EGU owners or operators to report MATS rule emissions and compliance information electronically using two data systems. See 40 CFR 63.10031 (77 FR 9304, February 16, 2012). Paragraph (a) of 40 CFR 63.10031 required EGU owners or operators that demonstrate compliance by continuously monitoring mercury (Hg) and/or HCl and/or hydrogen fluoride (HF) emissions to use the ECMPS Client Tool to submit monitoring plan information, quality assurance (QA) test results, and hourly emissions data in accordance with appendices A and B to subpart UUUUU of 40 CFR part 63. Paragraph (f) of 40 CFR 63.10031 required performance stack test results, performance evaluations of Hg, HCl, HF, sulfur dioxide (SO₂), and PM CEMS, 30-boiler operating day rolling average values for certain parameters, Notifications of Compliance Status, and semiannual compliance reports to be submitted to the EPA's WebFIRE database via the Compliance and Emissions Data Reporting Interface (CEDRI).

Subsequent to the publication of the MATS rule, stakeholders suggested to the EPA that the MATS rule electronic reporting burden could be significantly reduced if all of the required information were reported to one data system instead of two. The stakeholders also suggested that using one data system would benefit the EPA and the public in their review of MATS rule data, because the information would be reported in a consistent format. In view of these considerations, the stakeholders urged the EPA to consider amending the MATS rule to require all of the data to be reported through the ECMPS, a familiar data system that most EGU owners or operators have been using since 2009, to meet the electronic reporting requirements of the Acid Rain Program.

After careful consideration of the stakeholders' recommendations, the EPA concluded that the increased transparency of the emissions data and the reduction in reporting burden that could be achieved through the use of a single data system are consistent with Agency priorities. As a result, late in 2014, the EPA decided to take the necessary steps to require all of the electronic reports required by the MATS rule to be submitted through the ECMPS Client Tool. Those steps would include revising the MATS rule, modifying the ECMPS Client Tool, creating a detailed set of reporting instructions, and beta testing the modified software. Recognizing that insufficient time was available to complete these tasks before the initial compliance date for the MATS rule (April 16, 2015), the Agency embarked on a two-phased approach to complete them.

The first phase was completed when the EPA published a final rule requiring EGU owners or operators to suspend temporarily (until April 16, 2017) the use of the CEDRI interface as the means of submitting the reports described in 40 CFR 63.10031(f), (f)(1), (2), and (4), and to use the ECMPS Client Tool to submit PDF versions of these reports on an interim basis (see 80 FR 15510, March 24, 2015). The specific reports required to be submitted as PDF files

included: performance stack test reports containing enough information to assess compliance and to demonstrate that the testing was done properly; relative accuracy test audit (RATA) reports for SO₂, HCl, HF, and Hg CEMS; RATA reports for Hg sorbent trap monitoring systems; response correlation audit (RCA) and relative response audit (RRA) reports for PM CEMS; 30-boiler operating day rolling average reports for PM CEMS, PM CPMS, and approved hazardous air pollutants (HAP) metals CEMS; Notifications of Compliance Status; and semiannual compliance reports. Section 63.10031(f)(6) of the March 24, 2015, final rule required each PDF version of a submitted interim report to include information that identifies the facility (name and address), the EGU(s) to which the report applies, the applicable rule citations, and other information. The rule further specified that in the event that implementation of the single data system initiative was not completed by April 16, 2017, the electronic reporting of MATS data would revert to the original two systems approach on and after that date.

In the preamble to the March 24, 2015, final rule, the EPA outlined the second phase of the single data system initiative, to be executed during the interim PDF reporting period. In phase two: (1) the Agency would publish a direct final rule, requiring MATS-affected sources to use the ECMPS Client Tool to submit all required reports; and (2) a detailed set of reporting instructions would be developed and ECMPS would be modified to receive and process the data.

Considering the magnitude of the rule changes that would be required to execute phase two, coupled with the need to specify data elements to be reported electronically for PM CEMS, PM CPMS, and HCl CEMS, the Agency decided to provide stakeholders an opportunity to review and comment on the proposed changes. The EPA issued the proposed rule on September 29, 2016.¹ The comment period for the 2016 proposal (or “previous proposal”) was scheduled to

¹ 81 FR 67062, September 29, 2016.

close on October 31, 2016, but it was subsequently extended until November 15, 2016, in response to requests from several stakeholders for an extension.

Commenters were generally supportive of the initiative to simplify and streamline the MATS reporting requirements and to use the ECMPS Client Tool as the single MATS rule reporting system. However, they expressed serious concerns about the proposal to extend the interim PDF reporting process from April 16, 2017, to December 31, 2017. Although they favored an extension of the PDF reporting, they were unanimous in asserting that the proposed end date of December 31, 2017, would not allow enough time to finalize the rule, develop the necessary XML reporting formats and reporting instructions, and reprogram the ECMPS Client Tool. In addition, two data acquisition and handling system vendors stated that more time would be needed for them to adapt to the proposed changes and to develop the reporting software for their customers. Some of the commenters recommended that the EPA should extend the interim PDF reporting process through calendar year 2019; others suggested that the process should be extended for 6 to 8 calendar quarters after finalization of the rule.

In view of these considerations, on April 6, 2017, the EPA published a final rule extending the interim PDF file reporting process through June 30, 2018 (82 FR 16736). Technical corrections to appendix A were also included in the rule package. The rule went into effect on April 6, 2017. As the Agency was unable to complete the e-reporting provisions, another extension to the interim PDF file reporting process – through June 30, 2020 – was promulgated on July 2, 2018 (83 FR 30879).

The Agency continued to develop the remaining electronic reporting and recordkeeping requirements, considering the comments received on the September 29, 2016 (81 FR 67062) proposal. When that effort was complete, rather than finalizing those requirements, the Agency

decided to again provide stakeholders with an opportunity to review and comment on the requirements, so the Agency issued a proposal with those requirements on April 10, 2020 (85 FR 20342).

Thirty-five comment letters were received, and they are available in the docket. Many of those comments were similar to comments submitted before in other proposals and have been addressed previously. Responses for the comments on this action are included in the Response to Comments document which is also available in the docket. Significant comments can be sorted into eight groups; their general descriptions and responses follow.

1. Comments received on other MATS regulatory actions, *e.g.*, removal of the appropriate and necessary determination, are not relevant for this action and were not addressed. Likewise, comments regarding other regulatory actions, *e.g.*, insecticides and pesticides, are not relevant for this action and were not addressed.

2. A majority of commenters supported extending the use of PDF reporting until January 2024. Many industry commenters suggested splitting the package so the extension could be finalized, and more time could be spent on reviewing the other portions of the package. The Agency is not splitting the package and appreciates the support for the extension until the ECMPS Client Tool is reprogrammed and ready for use. The Agency sees no need for additional time to comment on the proposed revisions, as those revisions have been available for review and comment for over 3 years – since the September 29, 2016, proposal.

3. Commenters sought clarification on the conditions that would cause monitoring downtime to be considered a deviation, and the regulation provides that clarification.

4. Industry commenters sought to have consistent application of grace periods and ongoing QA check periods (based on operating quarters only) for PM CEMS and PM CPMS;

however, these instruments differ from other CEMS because except for the annual testing, there is no other time when the monitoring system is compared to a certified reference method value to determine accuracy. This difference means that techniques allowing for additional periods before testing is required puts EGU owners or operators, as well as the environment, at additional risk of elevated emissions during such periods. Due to this difference, and its potential effects, the regulation will not provide grace periods beyond 1 calendar quarter or ongoing QA checks based on operating quarters only.

5. Commenters sought clarification on Hg low-emitting EGU (LEE) testing calculations, and the regulation provides such clarification in 40 CFR 63.10005(h)(3)(iii).

6. Some commenters continue to assert that data elements in appendix E are duplicative, but as described before, those data elements are already required and represent the minimum bits of information needed to ensure smooth operation of an electronic reporting system. Even so, clarifications from already-mentioned deviation and monitoring downtime circumstances, as well as for reporting span values and fuel usage, have been provided in appendix E.

7. One commenter asked the Agency to reconsider allowing the use of alternate semi-annual reporting submission dates established by operating permit programs, at least until the ECMPS Client Tool is operational; the Agency agrees that this flexibility should be maintained during the extension period, and the rule has been revised to allow use of such alternate semi-annual reporting dates.

8. Finally, some commenters requested continued engagement with stakeholders as the new ECMPS Client Tool software is developed and tested. Consistent with previous ECMPS reporting instructions changes and the implementation of previous MATS reporting changes, the Agency will provide draft reporting instructions and XML schema documentation prior to implementation and engage stakeholders during the development and testing of software.

This action finalizes an extension of the interim PDF reporting process through December 31, 2023, and finalizes the remaining needed amendments to the MATS rule on electronic reporting. Note that these amendments were developed after consideration of the comments received on the September 29, 2016, and April 10, 2020, proposals.

III. What is the scope of these amendments?

This action amends the reporting requirements in 40 CFR 63.10031 of the MATS regulation, and, for consistency with those changes, amends related text in 40 CFR part 63, subpart UUUUU; specifically, 40 CFR 63.10000, 63.10005, 63.10009, 63.10010, 63.10011, 63.10020, 63.10021, 63.10030, 63.10032, 63.10042, and Tables 3, 8, and 9. In addition, the recordkeeping and reporting sections of appendices A and B are amended² and three new appendices are added to the rule, *i.e.*, appendices C, D, and E. Instead of using the electronic reporting tool (ERT) to submit some of the MATS data via CEDRI and submitting the remainder through the ECMPS Client Tool, as was required by the original MATS rule, this action allows EGU owners or operators to use the ECMPS Client Tool to report all of the required information in XML and PDF files.

IV. What are the specific amendments to 40 CFR part 63, subpart UUUUU as a result of this action?

The amendments to 40 CFR part 63, subpart UUUUU are discussed in detail in the paragraphs below.

A. Revisions to the Reporting Requirements of MATS

² In 2015, the EPA published a technology-neutral performance specification and associated QA test procedures for HCl monitors (see Performance Specification 18 (PS 18) and Procedure 6 in 80 FR 38628, July 7, 2015). That rule added certification and QA test requirements for sources electing to monitor HCl according to PS 18 and Procedure 6. This action requires the results of the appendix B certification and QA tests to be reported electronically for periods beginning on January 1, 2024.

The reporting requirements of MATS are amended as follows:

(1) The ECMPS Client Tool is the exclusive data system for MATS reporting, in lieu of using both ECMPS and the CEDRI.

(2) The interim PDF reporting process described in 40 CFR 63.10031(f) is extended through December 31, 2023, to allow sufficient time for software development, programming, and testing. Until then, compliance with the emissions and operating limits will continue to be assessed based on the various PDF report submittals described in 40 CFR 63.10031(f) and data from Hg, HCl, HF, and SO₂ CEMS and sorbent trap monitoring systems, as reported through the ECMPS Client Tool. On and after January 1, 2024, compliance with the emissions and operating limits is assessed based on: (1) quarterly compliance reports; (2) hourly data from all continuous monitoring systems (CMS) (including PM CEMS and PM CPMS) in XML format; (3) detailed reference method information for stack tests and CMS performance evaluations in XML format and PDF files; (4) Notifications of Compliance Status (if any) in PDF files; and (5) if applicable, supplementary data in PDF files for EGUs using paragraph 2 of the definition of startup in 40 CFR 63.10042. The ECMPS Client Tool is required to submit all of these reports and notifications.

(3) In order to properly close out the interim PDF reporting process, 40 CFR 63.10031(f)(6) states that PDF submittals are still accepted as necessary for the reports required under paragraph (f) introductory text, (f)(1), (2), or (4) if the deadlines for submitting those reports extend beyond December 31, 2023. As an example, the last semiannual compliance report under the interim PDF reporting process covers the period from July 1, 2023, through December 31, 2023; the deadline for submitting this report is January 30, 2024, and the report is submitted using the interim PDF reporting process.

(4) Revised paragraph (f)(2) of 40 CFR 63.10031 expands the quarterly reporting of 30- or 90-boiler operating day rolling average emission rates to include units monitoring Hg, HCl, HF, and/or SO₂ emissions, and units using emissions averaging. This change is consistent with 40 CFR 63.10031(f)(2) of the current rule, which requires quarterly reporting of 30-boiler operating day rolling averages for EGUs using PM CEMS, PM CPMS, and approved HAP metals CEMS. Therefore, starting with the first quarter of 2024, the 30- or 90-boiler operating day rolling averages (or, if applicable, rolling weighted average emission rates (WAERs) if emissions averaging is used) are reported quarterly in XML format for all parameters (including Hg, HF, HCl, and SO₂). However, instead of providing these rolling averages in separate, stand-alone reports, they are incorporated into the quarterly compliance reports required under 40 CFR 63.10031(g) (see section IV.A.(9) of this preamble, below).

(5) Revised paragraphs (a)(1), (2), and (5) of 40 CFR 63.10031 clarify the electronic reporting requirements for the Hg, HCl, HF, SO₂, and additional CMS. Specifically:

(i) Paragraph (a)(1) requires the electronic reporting requirements of appendix A to be met if Hg CEMS or sorbent trap monitoring systems are used.

(ii) Paragraph (a)(2) requires the electronic reporting requirements of appendix B to be met, with one important qualification, if HCl or HF monitoring systems are used. Until December 31, 2023, if PS 18 in part 60, appendix B is used to certify an HCl monitor and Procedure 6 in part 60, appendix F is used for on-going QA of the monitor, EGU owners or operators will temporarily report only data that the existing programming of ECMPS is able to accommodate, *i.e.*, hourly HCl emissions data and the results of daily calibration drift tests and RATAs; records are to be kept of all of the other required certification and QA tests and supporting data. The reason for this temporary, limited reporting is that PS 18 and Procedure 6

were not published until July 7, 2015; therefore, it was not possible to specify recordkeeping and reporting requirements for them in the original version of appendix B. Now that PS 18 and Procedure 6 have been finalized, this rule adds the necessary recordkeeping and reporting requirements, and the interim reporting for HCl will be discontinued as of January 1, 2024 (for further discussion, see section IV.C of this preamble).

(iii) Paragraph (a)(5) clarifies the electronic reporting requirements for the SO₂ CEMS and the additional monitoring systems under MATS. Sources currently reporting SO₂ mass emissions under the Acid Rain Program or Cross-State Air Pollution Rule already meet these requirements, except for paragraphs (a)(5)(iii)(C) and (E), which require, respectively, quarterly reporting of an hourly SO₂ emission rate data stream in units of the applicable MATS standard (*i.e.*, pounds per British thermal units (lb/MMBtu) or pounds per megawatt hours (lb/MWh)) and certification statements from the responsible official. Separate certification statements are required for the 40 CFR part 75 programs and MATS. (*Note:* For consistency with the changes described in items (i) through (iii), immediately above, 40 CFR 63.10031(f)(3) is removed and reserved).

(6) Paragraphs (b)(1) and (2) of 40 CFR 63.10031 are amended to recognize that some EGUs may have received extensions of their compliance date under 40 CFR 63.6(i)(4). References to postmark dates for submittal of semiannual compliance reports paragraphs are removed from paragraphs (b)(2) and (4); these reports currently are, and continue to be, submitted electronically through ECMPS as PDF files, until they are superseded by quarterly compliance reports, starting in the first quarter of 2024.

(7) The provision in 40 CFR 63.10031(b)(5), which allows affected EGU owners or operators to follow alternate submission schedules for semiannual compliance reports are

discontinued when the interim PDF reporting period ends. When that interim PDF reporting period ends, the uniform submission schedule described in 40 CFR 63.10031(b)(1) through (4) is required for all affected EGUs, so that compliance with this reporting requirement can easily be tracked.

(8) New 40 CFR 63.10031(b)(6) will require EGU owners or operators to discontinue submission of semiannual compliance reports when the interim PDF reporting period ends. The final semiannual compliance report covers the period from July 1, 2023, through December 31, 2023.

(9) EGU owners or operators submit quarterly compliance reports in lieu of the semiannual compliance reports, starting with reports covering the first quarter of 2024 (see 40 CFR 63.10031(g)). The quarterly compliance reports retain many features of the semiannual reports and consolidate them with other reports that were originally required to be submitted separately on different schedules. These compliance reports will be due within 60 days after the end of each calendar quarter, which allows sufficient time to receive the results of stack tests (particularly PM, HCl, and HF tests) performed at or near the end of a calendar quarter. Each quarterly compliance report includes the applicable data elements listed in sections 2 through 13 of appendix E.

The owner or operator's MATS compliance strategy determines which of the data elements in sections 2-13 of appendix E are included in the quarterly compliance reports. If continuous emission monitoring were used to demonstrate compliance on a 30- or 90-boiler operating day rolling average basis, the quarterly compliance reports include all of the 30- or 90-day averages calculated during the quarter. If emissions averaging were used, EGU owners or operators report all of the 30- or 90-group boiler operating day WAERs calculated during the

quarter. If periodic stack testing for compliance were performed (including Hg LEE tests and PM tests to set operating limits for PM CPMS), the EGU owner or operator reports a summary of each test completed during the calendar quarter and indicate whether the test has a special purpose (*i.e.*, if it were to be used to establish LEE status or for emissions averaging).

The quarterly compliance reports retain and incorporate the following features of the semiannual compliance reports: (1) boiler tune-up dates; (2) monthly fuel usage data; (3) process and control equipment malfunction information; (4) reporting of deviations; and (5) emergency bypass information, for certain EGUs that qualify for and elect to use the LEE compliance option for Hg. However, for EGU owners or operators who elect to (or are required to) use CMS to demonstrate compliance, these quarterly reports, to some extent, move away from traditional “exception only” reporting. Currently, reporting of the excess emissions and monitor downtime information described in 40 CFR 63.10(e)(3)(v) and (vi) in PDF files has been required as part of the semiannual compliance reports. That information includes, among other things, identification of excess emissions periods, identification of periods when the monitoring system was inoperative or out of control, the reasons for the excess emission and monitor downtime periods, corrective actions or preventative measures taken, description of repairs or adjustments to inoperative or out-of-control CMS, the total amount of source operating time in the reporting period, and the excess emissions and monitor downtime, expressed as percentages of the source operating time. As explained above, rather than this traditional exception-only reporting, these amendments require all of the 30- (or 90-) boiler operating day rolling averages or WAERs for all parameters to be included in the quarterly compliance reports. In addition, the following elements of the excess emissions summary, with slight modifications, are included in the quarterly compliance reports: (1) the total number of source operating hours in the quarter and

(2) the total number of hours of monitoring system downtime for various causes (known and unknown).

As previously noted, the requirement to report deviations is retained in the quarterly compliance reports. Specifically, the revisions to 40 CFR 63.10031(d) require the applicable data elements in section 13 of appendix E to be reported, which include the nature of the deviation (section 13.2), a description of the deviation (section 13.3), and any corrective actions taken (section 13.4). Section 13.3 further specifies the minimum amount of information reported in the description of certain deviations or monitoring downtime (*i.e.*, unmonitored bypass stack usage, emissions or operating limit exceedances, monitoring system outages, and missed or late performance stack tests).

We believe that consolidating information in quarterly compliance reports, as described above, rather than requiring separate submittals of 30- (or 90-) boiler operating day rolling average reports, excess emissions reports, and semiannual compliance reports that come in separately at different times during the year, greatly simplifies reporting and makes it easier for inspectors and auditors to assess compliance with the standards. Also, quarterly, as opposed to semiannual, reporting is advantageous because it shortens significantly the interval between the time that deviation or exceedance reporting on a term longer than quarterly occurs. Draft reporting instructions for the quarterly compliance reports are provided in the rule docket. In response to comments received, these instructions have been modified from a previous draft version.

(10) A new paragraph (c)(10) is added to section 63.10031 and requires malfunction information to be included in the semiannual compliance reports. This is not a new requirement; it was previously found in paragraph (g). However, as explained above, revised paragraph (g)

requires quarterly compliance reports to be submitted, starting in 2024. Therefore, to avoid losing the requirement to report malfunction information in the semiannual compliance reports, the former paragraph (g) has been renamed as paragraph (c)(10) and is added to the list of information that must be included in the semiannual reports. The introductory text of paragraph (c) is also amended, to recognize the addition of paragraph (c)(10).

(11) For consistency with the reporting requirements for the other CMS, the regulation does not require source owners or operators using PM CPMS to submit separate quarterly excess emission summary reports in addition to the quarterly compliance reports. After careful consideration of comments on the previous proposal, we are persuaded that sufficient information to assess compliance with the operating limits of a PM CPMS will be provided by: (1) the hourly PM CPMS response data reported in appendix D; (2) the quarterly compliance reports, which specify the operating limit of the PM CPMS, require deviations from the operating limit and monitoring requirements to be reported, and include summarized results of the PM tests used to develop the operating limits; and (3) the applicable reference method data for the PM tests required to be reported under sections 17-30 of appendix E.

Table 9 to 40 CFR part 63, subpart UUUUU is amended to reflect the transition away from exception-only reporting. The applicability of the recordkeeping and reporting requirements for excess emission and monitor downtime summary reporting in 40 CFR 63.7(c)(8), 63.10(c)(7), and 63.10(e)(3) ends on December 31, 2023, with the phase-out of the semiannual compliance reports.

(12) One commenter on the previous proposal brought to light some inconsistencies in the rule; regarding the way in which periods of monitor downtime should be regarded and reported, *i.e.*, whether or not they are reportable deviations. We thought the April proposal

addressed this concern, but other commenters asked for clarification during the current comment period. As the Agency meant to exempt periods of routine QA or quality control (QC) and routine maintenance from deviation reporting but not from monitoring downtime reporting, language in 40 CFR 63.10010(h)(5), (i)(4), and (j)(4) has been clarified, along with the clarifications to 40 CFR 63.10020(b) and (d), 40 CFR 63.10010(h)(6)(i) and (ii), (i)(5)(i) and (ii), and (j)(4)(i)(A) and (B) that were proposed in April. We also clarified the corresponding data elements in section 13 of Appendix E.

In response to comments for clarification concerning reporting of QA test results, which the Agency maintains is mandatory for all CMS, the regulation has been amended at 40 CFR 63.10010 to remove the last sentence in paragraphs (h)(6)(i), (j)(4)(i)(A) and (B); to require the monitoring system performance evaluations of PM CPMS and HAP metals CEMS be reported in paragraphs (h)(7) and (j)(4)(ii), respectively; to require the QA/QC activities for PM CPMS and HAP metals CEMS be reported quarterly in PDF files in 40 CFR 63.10031(k); and to cross-reference the appropriate sections of appendix C, regarding the certification, operation, maintenance, on-going QA, recordkeeping, and reporting requirements for PM CEMS in 40 CFR 63.10010(i).

(13) In all cases in which periodic stack tests (including Hg LEE tests and PM tests that are used to develop PM CPMS operating limits) are performed to demonstrate compliance, the rule retains the requirement for the EGU owner or operator to provide the applicable reference method data in appendix E (*i.e.*, sections 17 *et. seq.*) for each stack test that is performed to demonstrate compliance. Each of these submittals is required to accompany the quarterly compliance report that covers the calendar quarter in which the test was completed. For PM tests that are used to develop PM CPMS operating limits, EGU owners or operators will be required

to include the information in 40 CFR 63.10023(b)(2)(vi) as part of the Test Comment data element found in section 17.25 of appendix E.

(14) The applicable reference method data in sections 17 through 30 of appendix E will be required to be provided in XML format, starting with tests completed on or after January 1, 2024, for each RATA of an Hg, SO₂, HCl, or HF monitoring system, and for each RRA, RCA, or correlation test of a PM CEMS. The information in section 31 of appendix E is provided in a PDF file for each test. The appendix E information is submitted concurrently with the summarized electronic test results submitted to ECMPS under appendix A, B, or C, or 40 CFR part 75 (for SO₂ RATAs).

(15) The ECMPS Client Tool is also used to make the following submittals in PDF files:

(i) a detailed report of the current, active PS 11 correlation test, if the EGU owner or operator is using a certified PM CEMS to demonstrate compliance. For correlation tests completed prior to **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, the report is due no later than 60 days after that date. For correlation tests completed on or after **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, but prior to January 1, 2024, the report is due within 60 days after the date on which the test is completed. (*Note:* For correlations completed on and after January 1, 2024, in lieu of a PDF report, the test results are submitted electronically according to section 7.2.4 of appendix C, together with the applicable reference method data required under sections 17 through 31 of appendix E);

(ii) any initial Notification of Compliance Status issued on or after January 1, 2024; and

(iii) the information specified in 40 CFR 63.10031(c)(5)(ii) and 40 CFR 63.10020(e) for startup and shutdown incidents, if an EGU owner or operator is relying on paragraph (2) of the

definition of startup in 40 CFR 63.10042. Starting with a report covering the first calendar quarter of 2024, this information is submitted along with the quarterly compliance report. Note that 40 CFR 63.10031(c)(5)(iii) through (v), which require the semiannual compliance reports to include the hourly CEMS and operating parameter data recorded during startup and shutdown events have not been carried over to this PDF report because this information is duplicative of the hourly data reported electronically in the quarterly emissions reports. Startup and shutdown hours are flagged in the emissions reports and are identifiable for auditing purposes.

(16) To accommodate the required PDF reports, the applicable data elements in 40 CFR 63.10031(f)(6)(i) through (xii) are entered into the ECMPS Client Tool at the time of submission of each PDF file. Note that the amendment to data element (xii) replaces the word “conducted” with the word “completed.”

(17) Although the ECMPS Client Tool is used to submit the required reports and notifications described in revised 40 CFR 63.10031 and Table 8, ECMPS does not evaluate any of the PDF submittals or any of the XML-formatted reference method data from sections 17 through 31 of appendix E. Instead, these reports and notifications are transmitted directly through the EPA’s Central Data Exchange using CEDRI unaltered. ECMPS does, however, perform electronic checking of the hourly PM CEMS data and the summarized RATAs, PM CEMS correlation tests, RRAs, and RCAs that are submitted in XML format, in a manner that is consistent with the way that certification and QA test results are evaluated under the Acid Rain and Cross-State Air Pollution Rule programs. ECMPS uses the results of these evaluations to assess the quality-assured status of the Hg, HCl, HF, SO₂, or PM emissions data. In addition, ECMPS performs basic checks of the information in the quarterly compliance reports, *e.g.*, checking for completeness and proper formatting, but leaves compliance assessment to those

who review the reports. The EPA intends for all of these various data submissions to work together in a complementary fashion to enable meaningful compliance determinations. It is essential that any problems with the data identified by the reviewers are communicated to all involved and resolved appropriately. For example, if, for a particular Hg RATA, a review of the reference method data shows that the method was not done properly, the RATA would be invalidated. If, at the time of this discovery, the deadline for performing the RATA has passed and the allowable grace period has also expired, this improper RATA results in invalidation of hourly emissions data, from the expiration of the grace period until a valid RATA is performed and passed. Consequently, resubmission of quarterly emissions reports, recalculation of 30-day compliance averages, and resubmission of quarterly compliance reports may become necessary.

B. Revisions to Appendix A

Based on comments received, six sections of appendix A, *i.e.*, sections 5.1.1, 7.1.1.2.1, 7.1.3.3, 7.1.4.3, 7.1.8.2 and 7.2.3.1 are amended and described, here. The requirement in section 5.1.1 regarding required QA testing is clarified to allow daily calibrations to be performed offline and to specify that ongoing QA testing other than RATAs can be performed at no particular load levels.

The requirement in section 7.1.1.2.1 for electronic reporting is expanded to include emission controls. As part of the re-examination of the list of data elements that compose a complete test report, suggested by commenters, this data element was found to be missing in this section. The requirement in sections 7.1.3.3, 7.1.4.3, and 7.1.8.2 to report Hg concentrations and emission rates to three significant figures is revised so that Hg concentrations in micrograms per standard cubic meter ($\mu\text{g}/\text{scm}$) and Hg emission rates in pounds per trillion British Thermal Units or pounds per gigawatt-hour are reported with one leading non-zero digit and one decimal

place, in scientific notation. Conventional rounding is used, *i.e.*, if the digit immediately following the first decimal place is 5 or greater, the digit in the first decimal place is rounded upward (increased by one); if the digit immediately following the first decimal place is 4 or less, the digit in the first decimal place remains unchanged.

The requirement in section 7.2.3.1 to submit monitoring plan information at least 21 days before the applicable compliance date in 40 CFR 63.9984 is revised. For new EGUs or EGUs that install Hg monitoring systems in order to switch from another MATS-compliant methodology to Hg monitoring, the monitoring plan information is submitted at least 21 days prior to the date on which certification testing begins. However, for EGUs implementing Hg monitoring with a previously-certified Hg monitoring system, the monitoring plan may be submitted prior to or concurrent with the first quarterly emissions report - provided that the monitoring plan is in place when the first emissions report is submitted so that the ECMPS Client Tool is able to evaluate the data.

C. Revisions to Appendix B

For affected source owners or operators desiring to continuously monitor HCl emissions, the original version of appendix B required the monitoring system to be certified according to PS 15 in appendix B to 40 CFR part 60. However, PS 15 applies only to Fourier Transform Infrared (FTIR) Spectroscopy monitoring systems; therefore, the use of other viable HCl monitoring technologies was excluded. In view of this, the EPA regarded the requirement to use PS 15 exclusively as a temporary measure, until a technology-neutral PS for HCl monitors could be developed and published. In section 3.1 of appendix B, the Agency stated its intention to publish such a PS in the near future together with appropriate on-going QA requirements and to amend appendix B to accommodate their use. This additional PS, (PS 18 in 40 CFR part 60, appendix

B), and the on-going QA test requirements (Procedure 6 in 40 CFR part 60, appendix F) were published on July 7, 2015 (80 FR 38628, July 7, 2015).

Now that technology-neutral certification and QA test requirements for HCl monitors are promulgated, EGU owners or operators may use any viable HCl monitoring technology that can meet PS 18. However, in order for ECMPS to accommodate all of the tests required under PS 18 and Procedure 6, additional time must be allotted for software development. In view of this, 40 CFR 63.10031(a)(2) is revised, as previously noted, to require only information that is compatible with the existing programming of ECMPS to be reported electronically through December 31, 2023; this includes hourly HCl emissions data and the results of daily calibration drift tests and RATAs. In the interim, EGU owners or operators are required to keep records of all of the other certification and QA tests, which would be reported starting in 2024.

The title to section 2.3 of appendix B is revised by deleting the reference to FTIR-only monitoring systems. In addition, the recordkeeping and reporting sections of appendix B (*i.e.*, sections 10 and 11) are amended. Based on comments received, sections 10.1.3.3 and 10.1.7.2, HCl and HF concentrations ($\mu\text{g}/\text{scm}$) and emission rates (lb/MMBtu or lb/MWh) are reported with one leading non-zero digit and one decimal place, in scientific notation, rather than reporting the concentrations and rates to three significant figures. Conventional rounding is used, *i.e.*, if the digit immediately following the first decimal place is 5 or greater, the digit in the first decimal place is rounded upward (increased by one); if the digit immediately following the first decimal place is 4 or less, the digit in the first decimal place remains unchanged. Sections 10 and 11 also specify the data elements that are recorded and reported for each of the tests required by PS 18 and Procedure 6. The revisions make a clear distinction between the tests required for FTIR monitors that are following PS 15 and the test requirements of PS 18 and Procedure 6.

Some of the tests in PS 18 and Procedure 6 are similar to tests for which ECMPS programming exists. For example, the “measurement error test” required for initial certification of the HCl monitor is structurally the same as a 40 CFR part 75 linearity check. Other tests have no counterpart in 40 CFR part 75 and require special software development and reporting instructions. Note that electronic reporting of these tests through ECMPS would have been required if PS 18 and Procedure 6 had been in place when the original MATS rule was published. In view of this, for source owners or operators electing to use HCl CEMS, the amendments to section 11 of appendix B introduce no unnecessary reporting burden. The results of certification and on-going QA tests are reported electronically for all CEMS required under this rule in order for ECMPS to assess the quality-assured status of the emissions data. The Agency also notes that not all of the tests described in section 11 of appendix B are required for all HCl monitors. For example, some of the tests (*i.e.*, beam intensity, temperature, and pressure verifications) are specific to integrated path-CEMS, and Procedure 6 would offer a choice among three different types of audits (*i.e.*, cylinder gas audits, relative accuracy audits, or dynamic spiking audits) for the required quarterly QA tests. In addition, based on comments received, the reporting requirements for the interference check (which is not necessarily performed on each individual analyzer) are reduced.

For each RATA of HCl CEMS that are completed on and after January 1, 2024, the applicable reference method data in sections 17 through 31 of appendix E are submitted along with the electronic summary of results required under section 11 of appendix B. To the extent practicable, these data are submitted prior to or concurrent with the relevant quarterly electronic emissions report. However, as previously noted, this may not always be possible, particularly when the RATA is done near the end of a calendar quarter. The EPA test Methods 26 and 26A,

unlike instrumental test methods, require laboratory analyses of the collected samples and cannot provide test results while the test team is on-site. In view of this, section 11.4 of appendix B allows the test results to be submitted up to 60 days after the test completion date. “Provisional” status may be claimed for the emissions data affected by the test, starting from the date and hour in which the test is completed, and continuing until the date and hour in which the test results are submitted. If the test is successful, the status of the data in that time period change from provisional to quality-assured, and no further action is required. However, if the test is unsuccessful, the provisional data are invalidated, and resubmission of the affected emissions report(s) is required.

Because a technology-neutral PS for HCl CEMS was not available prior to April 16, 2015 (which was the compliance date for many of the existing EGUs), EGU owners or operators interested in monitoring HCl either had to use an FTIR system and follow PS 15 or implement another compliance option (*e.g.*, quarterly emission testing) while awaiting publication of PS 18 and Procedure 6. In light of this, section 11.5.1 of appendix B now clarifies when electronic reporting of hourly HCl emissions data begins. There are two possibilities. In the first case, the monitor is used for the initial compliance demonstration. This could either apply to a certified FTIR monitor following PS 15 or to a certified monitor following PS 18, if the owner or operator of the EGU received an extension of the compliance date. In this case, EGU owners or operators begin reporting hourly HCl emissions through ECMPS with the first operating hour of the initial compliance demonstration. In the second case, another option, such as stack testing, is used for the initial compliance demonstration and continuous monitoring is implemented at a later time. In that case, EGU owners or operators begin reporting hourly HCl emissions reporting through ECMPS with the first operating hour after successfully completing all required certification tests

of the CEMS. In either case, the first quarterly emissions report submittal is for the calendar quarter in which emissions reporting begins.

The requirement in section 11.3.1 to submit monitoring plan information at least 21 days before the applicable compliance date in 40 CFR 63.9984 is revised. For new units or units that install HCl and/or HF monitoring systems in order to switch from another MATS-compliant methodology to HCl and/or HF monitoring, the monitoring plan information must be submitted at least 21 days prior to the date on which certification testing begins. However, for units implementing HCl and/or HF monitoring with a previously-certified monitoring system, the monitoring plan may be submitted prior to or concurrent with the first quarterly emissions report.

Section 11.4.13 clarifies the reporting requirements for stack gas flow rate, moisture, and diluent gas monitoring systems that are used for certification, recertification, diagnostic, and QA tests are from section 10.1.8.2 of this appendix; such systems are also certified and quality-assured according to 40 CFR part 75 of this chapter.

D. Addition of Appendix C

A new appendix, *i.e.*, appendix C, is added to subpart UUUUU of 40 CFR part 63. Appendix C sets forth the continuous monitoring and reporting requirements for filterable PM. Appendix C is structurally similar to appendices A and B, but there is one notable difference. Appendix C includes provisions for installation and certification of the PM CEMS, and for on-going QA of the data from the CEMS. The monitoring system is certified according to PS 11 in 40 CFR part 60, appendix B, and for the on-going QA tests, Procedure 2 to 40 CFR part 60, appendix F is being required.

After consideration of comments received, the EPA has concluded that all PM concentrations will be reported in units of measure that are consistent with the PM CEMS

correlation. For example, if the PM CEMS measures in units of milligrams per actual cubic meter (mg/acm) and the concentrations used to derive the correlation curve are in those same units, then the hourly PM concentrations are recorded and reported in mg/acm. Section 7.1.9.5 of appendix C also requires the reference method readings and the PM CEMS responses obtained in the RRAs and RCAs to be reported in the same units of measure as the PM CEMS correlation curve.

Sections 7.1.3.3 and 7.1.7.2 require PM concentrations and emission rates (lb/MMBtu or lb/MWh) to be reported with one leading non-zero digit and one decimal place, in scientific notation, rather than reporting the concentrations and rates to three significant figures. Conventional rounding is used, *i.e.*, if the digit immediately following the first decimal place is 5 or greater, the digit in the first decimal place is rounded upward (increased by one); if the digit immediately following the first decimal place is 4 or less, the digit in the first decimal place remains unchanged.

The frequencies for the on-going QA tests and the rules for data validation are presented in section 5 of appendix C. In response to numerous requests from commenters, the frequency and data validation rules for the RCAs and RRAs are similar, but not identical to, provisions of 40 CFR part 75. The frequency of these tests follows the familiar calendar quarter and grace period reporting plan. An RRA is required once every 4 calendar quarters and an RCA is required once every 12 calendar quarters. A grace period is provided (*i.e.*, 720 operating hours or 1 calendar quarter, whichever comes first), to cover cases where circumstances beyond the control of the owner or operator prevent the required test from being completed on schedule. In addition, as explained in detail below, section 7.2.4 of appendix C allows the use of provisional data for up to 60 days after completion of an RRA, RCA, or PM CEMS correlation test.

The procedures for calculating the PM emission rates in units of the emission standard are found in section 6. These calculation methods are basically the same as those used for Hg monitoring systems and for HCl and HF CEMS in appendices A and B. The recordkeeping and reporting requirements are found in section 7. Section 7.1 requires monitoring plan records and hourly records of operating parameters, PM concentration, diluent gas concentration, stack gas flow rate and moisture content, and PM emission rates are kept. Sections 7.2.3 and 7.2.4, respectively, require monitoring plan information and the results of certification, recertification, and QA tests are reported electronically. For consistency with these revisions to appendices A and B, section 7.2.3.1 specifies that for new units or units installing PM CEMS in order to switch from another MATS-compliant methodology to PM monitoring, the electronic monitoring plan information is submitted at least 21 days prior to the commencement of certification testing. However, for EGUs with previously-certified PM CEMS that elect to implement PM monitoring, the monitoring plan information may be submitted prior to or concurrent with the first quarterly emissions report. Section 7.2.5 requires quarterly electronic emissions reports are submitted within 30 days after the end of each calendar quarter. All electronic reports are submitted using the ECMPS Client Tool. However, for EGUs that began using the PM CEMS compliance option prior to January 1, 2024, electronic reporting of monitoring plan information, certification and on-going QA test results, hourly PM emissions data, and the applicable reference method data in appendix E does not begin until January 1, 2024, to allow time for software development and beta testing. Until then, records of the required information and tests are kept. For EGUs that certify and begin using PM CEMS on or after January 1, 2024, reporting of hourly PM emissions data begin with the first operating hour after successful completion of the initial PM CEMS correlation test.

For PM CEMS correlations, RRAs, and RCAs completed on and after January 1, 2024, the applicable reference method data in sections 17 through 31 of appendix E are submitted along with the electronic test summary required under section 7.2.4 of appendix C. To the extent practicable, the electronic test results and the appendix E reference method data are submitted prior to or concurrent with the relevant quarterly electronic emissions report. However, the EPA recognizes that this is not always possible, particularly when an RRA or RCA is done near the end of a calendar quarter. The EPA test Methods 5 and 5D, unlike instrumental test methods, require laboratory analyses of the collected samples and generally cannot provide test results while the test team is on-site. In view of this, section 7.2.4 of appendix C allows the test results to be submitted up to 60 days after the test completion date. “Provisional” status may be claimed for the emissions data affected by the test, starting from the date and hour in which the test is completed, and continuing until the date and hour in which the test results are submitted. If the test is successful, the status of the data in that time period changes from provisional to quality-assured, and no further action is required. However, if the test is unsuccessful, the provisional data would be invalidated, and resubmission of the affected emission report(s) is required.

E. Addition of Appendix D

A new appendix, *i.e.*, appendix D, is added to subpart UUUUU of 40 CFR part 63. Appendix D sets forth the monitoring and reporting requirements for EGU owners or operators who elect to use a PM CPMS to demonstrate continuous compliance. Structurally, appendix D is similar to appendices A, B, and C. However, the criteria for system design and performance, the procedures for determining operating limits, data reduction, and compliance assessment, and certain recordkeeping requirements are not detailed in the appendix; rather, the applicable

sections of the MATS rule are cross-referenced (see sections 2.1 through 2.4, 3.1 introductory text, and section 3.1.1.1 of the appendix).

Section 3.1.1.2 requires the ECMPS Client Tool to be used to create and maintain an electronic monitoring plan. The PM CPMS is defined as a monitoring system with a unique system ID number. The monitoring plan also includes the current operating limit (with units of measure), the make, model, and serial number of the PM CPMS, the analytical principle of the monitoring system, and monitor span and range information.

The rule requires operating parameter records for each hour of operation of the affected EGUs, including the date and hour, the EGU or stack operating time, and a flag to identify exempt startup and shutdown hours. Hourly average PM CPMS output values are reported for each hour in which a valid value of the output parameter is obtained, in units of milliamps, PM concentration, or other units of measure, including the instrument's digital signal output equivalent. A special code is required to indicate operating hours in which valid data are not obtained. The percent monitor data availability is calculated in the manner established for SO₂, carbon dioxide (CO₂), oxygen (O₂), or moisture monitoring systems in 40 CFR 75.32.

Sections 3.2.2 and 3.2.3, respectively, require notifications (provided in accordance with 40 CFR 63.10030) and electronic monitoring plan submittals at specified times. For EGUs using the PM CPMS compliance option prior to January 1, 2024, the electronic monitoring plan information is submitted prior to or concurrent with the first quarterly report. For EGUs switching to the PM CPMS compliance option on or after January 1, 2024, the electronic monitoring plan is submitted no later than 21 days prior to the PM test that establishes the initial operating limit. Section 3.2.4 requires the electronic quarterly reports to be submitted within 30 days after the end of each calendar quarter. Reporting of hourly responses from the PM CPMS

begins either with the first operating hour of 2024 or the first operating hour after completion of the stack test that establishes the initial operating limit, whichever is later. Each quarterly report includes a compliance certification with a statement by a responsible official that to the best of his or her knowledge, the report is true, accurate, and complete.

In addition to the electronic quarterly reports, the rule requires reporting of deviations from the operating limit in the quarterly compliance reports required under 40 CFR 63.10031(g). Further, section 3.2.5 of appendix D requires the results of each performance stack test for PM that is used to establish an operating limit are reported electronically in the relevant quarterly compliance report. For PM tests completed on and after January 1, 2024, the applicable appendix E reference method data are also submitted along with the relevant quarterly compliance report.

F. Addition of Appendix E

A new appendix, *i.e.*, appendix E, is added to subpart UUUUU of 40 CFR part 63. Sections 2 through 13 of appendix E list the data elements that are reported in XML format in the quarterly compliance reports required under 40 CFR 63.10031(g), starting with reports covering the first quarter of 2024.

The MATS compliance strategy (*e.g.*, whether the EGU owner or operator elects to perform periodic stack testing, continuous monitoring, or to use emissions averaging) and the events that occur during each calendar quarter determine which data elements in sections 2 through 13 are included in the quarterly compliance reports. As noted in section V.A.(9) of this preamble, updated reporting instructions for these compliance reports are found in the rule docket.

For reasons stated in the previous proposal's Response to Comments document (which is available in the rule docket³), the basic provisions of sections 14 through 21 of appendix E, requiring details of the reference methods used for performance stack tests and CMS performance evaluations are reported in XML format are retained. The rule also retains the requirement in section 22 of appendix E to provide reference method test information that is incompatible with electronic reporting as PDF files, although it has been renumbered as section 31 and modified to include a cross-reference to 40 CFR 63.7(g), which describes the contents of a performance test report. The applicable reference method information in appendix E is provided for each stack test; each RATA of a Hg, HCl, HF, or SO₂ monitoring system; and each RRA, RCA, or correlation test of a PM CEMS that is completed on and after January 1, 2024.

To address concerns raised by the commenters about portions of the 2016 proposed rule⁴ (the previous proposal), specifically, the reporting requirements in sections 17 through 21 of proposed appendix E, the data element lists are revised and reformatted to correspond to the compliance options described in section 16 of appendix E. Explicitly, sections 17 through 30 replace previously proposed sections 17 through 21. Commenters pointed out, and the Agency concurs, that some of the previously proposed data elements are either unnecessary, inapplicable to MATS, or duplicative of information in other MATS reports; these elements have been removed from the lists and include:

- Previously proposed 7.1.3.3.1 of appendix C to this subpart;
- Previously proposed 7.1.3.3.2 of appendix C to this subpart;
- Previously proposed 7.1.3.3.3 of appendix C to this subpart;
- Previously proposed 7.1.3.4 of appendix C to this subpart;

³ See EPA-HQ-OAR-2018-0794 at <https://www.regulations.gov/>.

⁴ As mentioned in footnote 1, see 81 FR 67062, September 29, 2016.

- Previously proposed 10.4 of appendix E to this subpart;
- Previously proposed 10.5.1 of appendix E to this subpart;
- Previously proposed 10.5.2 of appendix E to this subpart;
- Previously proposed 10.5.7 of appendix E to this subpart;
- Previously proposed 17.28 of appendix E to this subpart;
- Previously proposed 17.30 of appendix E to this subpart;
- Previously proposed 17.37 of appendix E to this subpart;
- Previously proposed 18.21 of appendix E to this subpart;
- Previously proposed 19.29 of appendix E to this subpart;
- Previously proposed 20.4 of appendix E to this subpart;
- Previously proposed 20.15 of appendix E to this subpart;
- Previously proposed 20.17 of appendix E to this subpart;
- Previously proposed 20.21 of appendix E to this subpart;
- Previously proposed 20.25 of appendix E to this subpart;
- Previously proposed 20.30 of appendix E to this subpart;
- Previously proposed 20.36 of appendix E to this subpart;
- Previously proposed 20.37 of appendix E to this subpart;
- Previously proposed 20.41 of appendix E to this subpart;
- Previously proposed 20.42 of appendix E to this subpart;
- Previously proposed 20.44 of appendix E to this subpart;
- Previously proposed 20.46 of appendix E to this subpart;
- Previously proposed 20.52 of appendix E to this subpart;
- Previously proposed 21.14 of appendix E to this subpart; and

- Previously proposed 21.28 of appendix E to this subpart.

Reporting instructions for sections 17 through 30 have been developed. These draft example instructions are included in the rule docket.

The reorganized data element lists and corresponding instructions clarify which data elements are reported for each compliance option and explain how the data are reported. Several new data elements are in the lists, to enable the ECMPS Client Tool to be used, to enhance the quality of the data, and to facilitate compliance. As mentioned in VI.C of this preamble, this action is expected to reduce overall annual source burden. The Agency believes that the addition of these data elements is offset by the removal of others, the change to a consistent submission frequency, and the merger of separate electronic reporting systems into just one electronic reporting system such that overall annual source reporting burden is reduced by 11,000 hours.

The new data elements to be reported are as follows:

- “Part.” The previous proposal would only have required the “Subpart” to be reported. To avoid any possible confusion with other EPA regulations, both the CFR part (63) and subpart (UUUUU) need to be included in the reports.
- “APS Flags.” For 3-level pre-test calibrations, system bias, and drift checks, instrumental EPA test Methods 3A and 6C require certain acceptance criteria to be met. For each of these tests, there is a main PS and an alternative specification. The main PS is expressed as a percentage of span, while the alternative specification is the absolute difference between a reference value and the measured value. In view of this, it is important to know which specification has been applied to ascertain whether the test was successful or not. Therefore, alternative performance specification (APS) flags are to be added for the pre- and post-test calibrations, bias checks, and drift checks. An APS flag of “0” indicates that the reported test

result is based on the main PS, whereas an APS flag of “1” means that the reported result is based on the APS.

- “Test Comment.” This text field is added to allow the affected sources to provide additional, pertinent information about a particular test.
- “Run Begin Date” and “Run End Date.” These two data elements replace the previous proposed element, “Run Date,” to cover cases where a test run begins on one day and ends on another (*e.g.*, if a run begins late at night and ends early the next morning).
- “Converted Concentration and Units of Measure.” These data elements apply to correlation tests and performance audits (RRAs and RCAs) of PM CEMS. The reference method used for these tests is EPA test Method 5 (or, if applicable, 5D). The PM concentrations obtained from EPA test Method 5 or 5D are expressed in units of grams per dry standard cubic meter (g/dscm). However, consistent with section 8.6 of PS 11, appendix C of MATS requires all PM concentrations to be reported in units of measure that are consistent with the PM CEMS correlation curve. Most PM CEMS measure concentration in units of milligrams per actual cubic meter (mg/acm); others may measure at a certain temperature (*e.g.*, mg/acm at 160 degrees Celsius), and still others may measure on a dry basis. Therefore, in addition to reporting the EPA test Method 5 test results in units of g/dscm, the converted PM concentrations must be reported in units consistent with the PM CEMS correlation curve.
- “Average Sampling Rate and Units of Measure.” These data elements are specific to EPA test Method 30B. That EPA test Method 30B requires a post-test leak check of each sampling train. The leakage rate must not exceed 4 percent of the average sampling rate. Therefore, to assess compliance with this specification, both the leakage rate and the average sampling rate must be reported. The previous proposed rule only required the leakage rate to be reported.

- “Control Device Code.” This data element refers to the control device code or control technology National Emission Inventory code associated with the EGU (or group of EGUs sharing a common stack). Providing this data element helps in EGU categorization and emission factor development.

- “Corresponding Reference Method(s), if applicable.” This data element allows pollutant reference method run data to be associated with concurrent measurements of the stack gas flow rate using EPA test Method 2, and/or CO₂ or O₂ concentration using EPA test Method 3A, and/or stack gas moisture content using EPA test Method 4. Reporting this data element is necessary to ensure test methods were conducted properly so that emission rates can be calculated.

- “Corresponding Reference Method(s) Run Number, if applicable.” This data element provides the run number of concurrent reference method tests. The assigned run number of the EPA test Method 1 through 4 or EPA test Method 3A tests conducted at the same time as a reference method test needs to be reported in order to ensure the methods were conducted properly so that emission rates can be calculated.

- “Pollutant Concentration Units of Measure.” This data element provides the appropriate units of measure code for the pollutant or analyte concentration, and reporting it is necessary for comparison to the standard.

- “Pollutant Emission Rate.” This data element is the pollutant emission rate expressed in the units of the standard, and reporting it is necessary for comparison with the standard.

- “Pollutant Emission Rate Units of Measure (in units of the standard).” This data element is the units of the standard specified in Table 1 or 2 of this subpart. Reporting it is necessary for comparison to the standard.

- “Process Parameter Units of Measure.” This data element identifies the process rate parameter unit of measure: GWh/h, MWh/h, TBtu/h, or MMBTU/h, and reporting it is necessary to ensure accurate comparisons between runs and for emission factor development purposes.

- “Total Pollutant Mass Trap A” and “Total Pollutant Mass Trap B.” These data elements refer to the total Hg mass measured by Train A and Train B, respectively, in the appropriate units of measure. Reporting these values is necessary for QA purposes and for comparison with the standard.

- “Method Detection Limit (MDL).” This data element refers to the minimum amount of analyte that can be detected and reported. Reporting it is necessary for calculation checks and for emissions factor development purposes.

- “Percent Spike Recovery.” This data element refers to the spike recovery in percent, which is required to be reported by section 8.2.6.2 in EPA test Method 30B using Equation 30B-1.

- “F-Factor (F_c).” This data element expands the current F-factor choices to include the carbon F-Factor, which is based on the ratio of CO₂ to heat content of fuel. Reporting it allows conversion from mass per volume to mass per heat input for those who choose to use emissions testing.

- “Compliance Limit Basis (Heat Input or Electrical Output).” This data element identifies the denominator of the compliance units selected for an existing EGU by its owner or operator. Reporting this decision is necessary for comparison of results with the standard.

- “Heat Input or Electrical Output Unit of Measure.” This data element specifies the denominator of the compliance unit that corresponds to the means of compliance selected for an

existing EGU by its owner or operator. Reporting this unit is necessary for comparison of results with the standard and for emission factor development purposes.

- “Pollutant Concentration.” This data element expands the already-existing “Emissions Concentration” data element to include pollutants. Reporting this data element is necessary for comparison of results with the standard and for emission factor development purposes.

- “Stack Gas Flow Rate – dscfm.” This data element clarifies the already-existing “Volumetric Flow Rate – scfm” data element so that reporters will know to report their EGU’s dry stack gas flow rate. Reporting this data element is necessary for calculation purposes.

Several commenters⁵ on the September 29, 2016, proposed rule (*i.e.*, the previous proposal) suggested that those proposed revisions included a significant amount of duplicative reporting, which should be eliminated. In response to the concerns expressed by the commenters, the Agency examined the XML data element lists twice – once in 2016 and recently after closure of the current comment period - for stack tests and CMS performance evaluations, in order to identify duplicative reporting and eliminate it where possible. The following evaluations were made:

First, the data elements in sections 2 through 13 of appendix E (for the quarterly compliance reports) were compared against the data elements in sections 17 through 30 of appendix E (corresponding to the detailed reference method data for stack tests and CMS performance evaluations). The two lists were found to have 20 data elements in common, but at least nine of these elements (*i.e.*, Source ID (Sampling Location), Test Number, Run Number, Run Begin Date, and a few others) are to be included in both XML schemas to properly link the

⁵ Commenters 20612, 20597, and 20609 on Docket ID No. EPA-HQ-OAR-2009-0234.

individual stack test summaries in the compliance report with the corresponding reference method data.

Second, the data elements listed in the reporting sections of appendices A, B, and C of MATS, requiring the results of CMS performance evaluations (*i.e.*, RATAs, RRAs, and RCAs) to be reported using the ECMPS Client Tool, were compared against the corresponding reference method data elements in sections 17 through 30 of appendix E. Only 12 data elements common to the appendix E and ECMPS Client Tool schemas were found. This is not surprising because appendices A, B, and C require only summarized results of CMS performance evaluations - details of the Reference Method tests are not reported. Of the 12 data elements common to the appendix E and ECMPS lists, 10 of them are to be included in both schemas to properly link the CMS test summaries with the corresponding reference method data.

In view of these two evaluations, the EPA concludes that most of the duplicative reporting found among the various data element lists is necessary to ensure that the results of stack tests and CMS performance evaluations summarized in the quarterly compliance reports and the QA test submittals to the ECMPS Client Tool can be matched with the corresponding reference method data. Further, the remainder of the duplicative reporting is minimal, rather than “significant” as asserted by some commenters. The Agency believes that it is best not to modify the data element lists to eliminate this small amount of duplicate reporting. Although the deadlines for submitting the quarterly compliance reports and the corresponding reference method data are the same (*i.e.*, within 60 days after the end of the quarter), the two XML reports might not be submitted concurrently. So, if, for instance, the compliance report is submitted prior to the reference method data, and certain data elements are found only in the reference method report, a thorough assessment of compliance may not be possible until the reference method

report is received. Similar considerations apply to the summarized CMS performance evaluations in the ECMPS Client Tool and the corresponding reference method data, if the two XML reports are not submitted concurrently.

V. Revisions to Other Rule Text

The revisions to 40 CFR 63.10031 necessitate changes to other sections of the rule to ensure that the rule is internally consistent. Based on comments received, revisions were made to clarify certain reporting requirements, to rectify inadvertent omissions, and to correct inconsistencies. The affected rule sections are as follows:

(a) The introductory text of paragraphs (a)(2), (b), and (h)(3)(iii) of 40 CFR 63.10005 is revised. The amendment to paragraph (a)(2) clarifies that Hg compliance may either be determined on either a 30- or 90-boiler operating day rolling average basis. For consistency with appendix E, revised paragraph (b) notes that when auxiliary stack gas flow rate or moisture data are needed to supplement a performance stack test conducted with an isokinetic method such as EPA test Method 5 or EPA test Method 26A, separate EPA test Method 2 or EPA Method 4 tests are not needed to satisfy the requirements of 40 CFR 63.10007 and Table 5. Data from the isokinetic method may be used to determine the stack gas flow rate and moisture content. Revised section (h)(3)(iii) addresses a commenter's request for clarification on how to calculate a 30-day Hg LEE test average.

(b) Section 40 CFR 63.10009 is amended as follows. The second and third sentences in paragraph (a)(2) are revised to clarify the types of data that may be used to determine WAERs. Data from Hg CEMS, sorbent trap monitoring systems, but not LEE tests, may be used for Hg emissions averaging. For other pollutants, both CEMS data and stack test data may be used. The last sentence of paragraph (a)(2) is amended to clarify that if any EGU in an averaging group

operates on *any* of the days in a 30- or 90-group boiler operating day compliance period (regardless of how many or how few), the emissions data from that EGU on those days must be included in the weighted average. Since averaging of Hg emissions is permitted on a 30-group boiler operating day basis, Equations 2a and 2b in 40 CFR 63.10009 apply to Hg as well as other pollutants. Therefore, the words “for pollutants other than Hg” are removed from the introductory text of paragraph (b)(2), and in the nomenclature of Equation 2a, the words “or sorbent trap monitoring” are added after the words “unit i’s CEMS” in the definition of the term “Her_i.” Finally, for completeness, Equations 3a and 3b are amended by removing the terms that pertain to quarterly stack testing. Equations 3a and 3b apply *only* to the 90-group boiler operating day Hg WAER limit for coal-fired units. Coal-fired EGUs do not have the option to use quarterly stack testing to demonstrate compliance; if a coal unit does not qualify as a LEE, Hg emissions must be continuously monitored.

(c) As explained in section IV.A(11) above, paragraphs (h)(6) and (7), (i), (j)(4)(i), and (j)(4)(ii) of 40 CFR 63.10010 are revised to resolve inconsistencies in the text.

(d) Section 40 CFR 63.10011(e) is revised to require Notifications of Compliance Status for initial compliance demonstrations include the information specified in 40 CFR 63.10030(e), and are submitted in accordance with 40 CFR 63.10031(f)(4) or 40 CFR 63.10031(h), as applicable. This change is necessary to cover initial Notifications of Compliance Status for both new and existing EGUs. The interim reporting process described in 40 CFR 63.10031(f)(4) and the on-going reporting process in 40 CFR 63.10031(h) require these Notifications to be submitted as PDF files, through ECMPS.

(e) Sections 40 CFR 63.10011(g)(3), 40 CFR 63.10021(i), and two sentences in Items 3 and 4 of Table 3 are revised to be consistent with 40 CFR 63.10031(i) and Table 8. For EGU

owners or operators relying on paragraph (2) of the definition of startup in 40 CFR 63.10042, 40 CFR 63.10031(i) retains the requirement for the parametric data and other information in 40 CFR 63.10031(c)(5) be included in the semiannual compliance reports, for startup and shutdown incidents that occur during the interim reporting period. However, in view of the phase-out of the semiannual compliance reports, for startup and shutdown incidents that occur during each subsequent calendar quarter, starting with the first quarter of 2024, the supplementary information in 40 CFR 63.10031(c)(5)(ii) and 40 CFR 63.10020(e) is required to be provided as a separate PDF submittal, along with the quarterly compliance report. As previously noted, the requirements in 40 CFR 63.10031(c)(5)(iii), (iv), and (v) to report hourly average CEMS and operating parameter values for startup and shutdown events are not incorporated into this PDF report because they are duplicative of the hourly values reported under appendices A through D. Startup and shutdown hours are flagged in the quarterly emissions reports and can be identified for auditing purposes.

(f) Paragraphs (e)(9), (f), and (h)(3) of 40 CFR 63.10021 are revised as follows.

Paragraph (e)(9) is unchanged from the previous proposal, except that the December 31, 2017, and January 1, 2018, transition dates are replaced with December 31, 2023, and January 1, 2024, respectively. References to the EPA's ERT and the CEDRI interface from paragraph (f) are removed and replaced with a general statement requiring all applicable notifications and reports be submitted through the ECMPS Client Tool. Three statements are added at the end of paragraph (f). The first statement, regarding a submission deadline that occurs on a weekend or Federal holiday, extends the deadline to the next business day. The second statement addresses a submission deadline that occurs when the ECMPS system is offline for maintenance; in that case, the deadline is extended until the first business day after the system outage. The third

statement clarifies that using the ECMPS Client Tool to submit a required MATS report or notification satisfies the requirement in 40 CFR 63.13 of the General Provisions to submit that same report or notification (or the information contained in it) to the appropriate EPA Regional office or state agency whose delegation request has been approved. Finally, we are removing paragraph (h)(3) because it is redundant with paragraph (i) and, therefore, unnecessary.

(g) Previous section 40 CFR 63.10030(e)(7)(i) is removed for the following reasons. The requirement in the current rule for an initial Notification of Compliance Status to include summarized results of annual and triennial performance tests which have not been done yet is in an incorrect location. The requirement to submit these test summaries belongs in 40 CFR 63.10031, not 40 CFR 63.10030. Text similar to 40 CFR 63.10030(e)(7)(i) does, in fact, exist in 40 CFR 63.10031. Specifically, 40 CFR 63.10031(c)(7) requires the annual and triennial test results be summarized in the semiannual compliance reports. Note, however, that when the semiannual compliance reports are phased out in 2024, the requirement to provide summarized results of these tests does not end; the test summaries must be included in the quarterly compliance reports under 40 CFR 63.10031(g).

The requirements of section 40 CFR 63.10030(e)(7)(iii) are amended to rectify an inadvertent oversight. In the 2016 Technical Corrections rule package, the EPA proposed a set of conditions that would allow an EGU owner or operator to submit a request for permission to switch from a heat input-based standard to an output-based standard. One of the proposed conditions in paragraph (e)(7)(iii)(A)(3) required a demonstration of compliance with both emission limits based on “performance stack test results completed within 30 days prior to” the request. A commenter objected to limiting this demonstration to “stack test” data and asked the EPA to allow any data collected up to 45 days prior to the request, including CEMS data, be

used. In the Response to Comments document, the EPA agreed with these commenters, but did not make the necessary changes to paragraph (e)(7)(iii)(A)(3) in the final rule. This rule corrects this oversight. In addition, a note is added to paragraph (e)(7)(iii) to clarify that requests to switch from one standard to the other are made subsequent to, and are not part of, the initial Notification of Compliance Status.

(h) The requirements of 40 CFR 63.10032(a) are amended to include references to the recordkeeping required under new appendices C (for PM CEMS), D (for PM CPMS), and E (for quarterly compliance reports and reference method test data). Also, in view of the move away from semiannual compliance reporting to quarterly reporting, the term “semiannual compliance report” is replaced with references to both semiannual and quarterly compliance reports in paragraph (a)(1).

(i) The words “or out of control period” are removed from the definition of “monitoring system malfunction or out of control period” in 40 CFR 63.10042 because that definition does not describe an out of control period. A separate definition of “out-of-control period” is added, and that definition is similar with the definition provided in the Acid Rain Program definitions at 40 CFR 72.2.

(j) Table 8 to subpart UUUUU of 40 CFR part 63 is revised to be consistent with the amendments to 40 CFR 63.10031 and the proposed addition of appendices C, D, and E.

(k) Finally, the recordkeeping and reporting requirements in Table 9 to 40 CFR part 63, subpart UUUUU are revised as follows. First, the requirement to provide the information in 40 CFR 63.10030(e)(1) through (8) is clarified, *i.e.*, it only applies to *initial* Notifications of Compliance Status; subsequent notifications are not required. Second, in keeping with the earlier discussion provided in section IV.A of this preamble, a statement clarifying that the excess

emissions recordkeeping and reporting requirements of 40 CFR 63.10(c)(7) and (8) and 63.10(e)(3)(v) and (vi) apply through December 31, 2023, when the semiannual compliance reports are phased out, is added. On and after January 1, 2024, all relevant information is provided in quarterly, as opposed to semiannual, reports.

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 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 13771: Reducing Regulations and Controlling Regulatory Costs

This action is considered an Executive Order 13771 deregulatory action. Details on the estimated cost savings of this final rule can be found in the EPA's analysis of the potential costs and benefits associated with this action.

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) document that the EPA prepared has been assigned EPA ICR number 2137.10. 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.

This rule continues to require collection, recording, and submission of data pertinent to demonstrating compliance with rule requirements. This action consolidates separate reporting

systems into one reporting system by 2024; maintains the information already required to be collected, recorded, and submitted; and changes the submission frequency from semiannual to quarterly while consolidating the number and type of reports to be submitted.

Respondents/affected entities: The respondents are owners or operators of fossil fuel-fired EGUs. The United States Standard Industrial Classification code for respondents affected by the rule is 4911 (Electric Services). The corresponding NAICS code is 2211100 (Electric Power Generation, Transmission, and Distribution).

Respondent's obligation to respond: Mandatory per 42 U.S.C. 7414 *et seq.*

Estimated number of respondents: 1,414.

Frequency of response: Quarterly for compliance reports.

Total estimated burden: 273,000 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: Savings of \$15,079,000 (per year), includes \$0 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. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will

not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden, or otherwise has a positive economic effect on the small entities subject to the rule. For purposes of assessing the impacts of this rule on small entities, the EPA considered small entities to be defined as: (1) A small business that is an electric utility producing 4 billion kilowatt-hours or less as defined by NAICS codes 221122 (fossil fuel-fired electric utility steam generating units) and 921150 (fossil fuel-fired electric utility steam generating units in Indian country); (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. As required by the RFA, the EPA proposed using this alternative definition in the **Federal Register** of May 3, 2011, 76 FR 25083, sought public comment, consulted with the Small Business Administration and finalized the alternative definition in the **Federal Register** of February 16, 2012, 77 FR 9433. As stated in that document, the alternative definition would apply to this regulation. This action reduces annual burden on small and large entities. We have, therefore, concluded that this action will relieve regulatory burden for all directly regulated small entities.

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. As described earlier, this action reduces annual burden on governments already subject to MATS; as a result, we have determined that this action will not result in any “significant” adverse economic impact for small governments.

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. As described earlier, this action has no substantial direct effect on Indian tribes already subject to MATS, since this action reduces their annual burden. Thus, Executive Order 13175 does not apply to this action.

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

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of “covered regulatory action” in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

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

The EPA believes that this action is not subject to Executive Order 12898 (59 FR 7629, February 16, 1994) because it does not establish an environmental health or safety standard. This regulatory action revises the way in which information is reported to the Agency, increasing submission frequency and making adaptations so that just one reporting system can be used, but reducing overall burden; this regulatory action does not have any impact on human health or the environment.

L. Congressional Review Act (CRA)

This action is subject to the 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 63

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

Andrew Wheeler,
Administrator.

For the reasons set forth in the preamble, EPA amends 40 CFR part 63 as follows:

**PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR
POLLUTANTS FOR SOURCE CATEGORIES**

1. The authority citation for part 63 continues to read as follows:

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

Subpart UUUUU—National Emission Standards for Hazardous Air

Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units

§63.10000 [Amended]

2. In §63.10000, paragraph (d)(5)(vi) is amended by adding the words “where appropriate,” immediately after the words “CMS that is out of control consistent with section 63.8(c)(7)(i).”

3. Section 63.10005 is amended by:

- a. Revising the first sentence in paragraph (a)(2) introductory text;
- b. Revising paragraph (b) introductory text; and
- c. Revising paragraph (h)(3)(iii).

The revisions read as follows:

§63.10005 What are my initial compliance requirements and by what date must I conduct them?

(a) * * *

(2) To demonstrate initial compliance using either a CMS that measures HAP concentrations directly (*i.e.*, an Hg, HCl, or HF CEMS, or a sorbent trap monitoring system) or an SO₂ or PM CEMS, the initial performance test shall consist of 30- or, if applicable for Hg, 90-boiler operating days. * * *

* * * * *

(b) *Performance testing requirements.* If you choose to use performance testing to demonstrate initial compliance with the applicable emissions limits in Tables 1 and 2 to this subpart for your EGUs, you must conduct the tests according to 40 CFR 63.10007 and Table 5 to this subpart. Notwithstanding these requirements, when Table 5 specifies the use of isokinetic EPA test Method 5, 5D, 26A, or 29 for a stack test, if concurrent measurement of the stack gas flow rate or moisture content is needed to convert the pollutant concentrations to units of the standard, separate determination of these parameters using EPA test Method 2 or EPA test Method 4 is not necessary. Instead, the stack gas flow rate and moisture content can be determined from data that are collected during the EPA test Method 5, 5D, 6, 26A, or 29 test (e.g., pitot tube (delta P) readings, moisture collected in the impingers, etc.). For the purposes of the initial compliance demonstration, you may use test data and results from a performance test conducted prior to the date on which compliance is required as specified in 40 CFR 63.9984, provided that the following conditions are fully met:

* * * * *

(h) * * *

(3) * * *

(iii) Calculate the average Hg concentration, in $\mu\text{g}/\text{m}^3$ (dry basis), for each of LEE test runs comprising the 30- (or 90-) boiler operating day performance test, as the arithmetic average of all Method 30B sorbent trap results from the LEE test period. Also calculate, as applicable, the average values of CO_2 or O_2 concentration, stack gas flow rate, stack gas moisture content, and gross output for the LEE test period. Then:

* * * * *

4. Section 63.10009 is amended by:

a. Revising in paragraph (a)(2) the second, third, and last sentences;

b. In paragraph (b)(2):

i. In the introductory text, removing the words “for pollutants other than Hg”;

ii. In the definition for “ Her_i ” adding the words “or sorbent trap monitoring system” after the words “unit i’s CEMS”; and

c. In paragraph (b)(3) revising “Equation 3a” and “Equation 3b.”

The revisions read as follows:

§63.10009 May I use emissions averaging to comply with this subpart?

(a) * * *

(2) * * * Note that except for the alternate Hg emissions limit from EGUs in the “unit designed for coal \geq 8,300 Btu/lb” subcategory, the averaging time for emissions averaging for pollutants is 30-group boiler operating days (rolling daily) using data from CEMS and sorbent trap monitoring (for Hg), or a combination of data from CEMS and emissions testing (for other pollutants). The averaging time for emissions averaging for the alternate Hg limit (equal to or less than 1.0 lb/TBtu or 1.1E-2 lb/GWh) from EGUs in the “unit designed for coal \geq 8,300 Btu/lb” subcategory is 90-group boiler operating days (rolling daily) using data from CEMS, sorbent trap monitoring, or a combination of data from CEMS and sorbent trap monitoring.

* * * You must calculate the weighted average emissions rate for the group in accordance with the procedures in this paragraph using the data from all units in the group including any that operate fewer than 30 (or 90) of the preceding 30- (or 90-) group boiler operating days.

* * * * *

(b) * * *

(3) * * *

$$WAER = \frac{\sum_{i=1}^p \left[\sum_{i=1}^n (Her_i \times Rm_i) \right]_p}{\sum_{i=1}^p \left[\sum_{i=1}^n (Rm_i) \right]_p} \quad (\text{Eq. 3a})$$

Where:

Her_i = Hourly emission rate from unit i's Hg CEMS or Hg sorbent trap monitoring system for the preceding 90-group boiler operating days,

Rm_i = Hourly heat input or gross output from unit i for the preceding 90-group boiler operating days,

p = Number of EGUs in the emissions averaging group,

n = Number of hours that hourly rates are collected over the 90-group boiler operating days.

$$WAER = \frac{\sum_{i=1}^p \left[\sum_{i=1}^n (Her_i \times Sm_i \times Cfm_i) \right]_p}{\sum_{i=1}^p \left[\sum_{i=1}^n (Sm_i \times Cfm_i) \right]_p} \quad (\text{Eq. 3b})$$

Where:

Her_i = Hourly emission rate from unit i's Hg CEMS or Hg sorbent trap monitoring system for the preceding 90-group boiler operating days,

Sm_i = Steam generation in units of pounds from unit i that uses Hg CEMS or Hg sorbent trap monitoring for the preceding 90-group boiler operating days,

Cfm_i = Conversion factor, calculated from the most recent compliance test results, in units of heat input per pound of steam generated or gross output per pound of steam generated, from unit i that uses Hg CEMS or sorbent trap monitoring from the preceding 90-group boiler operating days.

p = Number of EGUs in the emissions averaging group

n = Number of hours that hourly rates are collected over the 90-group boiler operating days.

* * * * *

5. Section 63.10010 is amended by revising paragraphs (h)(5), (6), (7), (i), and (j)(4) to read as follows:

§63.10010 What are my monitoring, installation, operation, and maintenance requirements?

* * * * *

(h) * * *

(5) You must collect data using the PM CPMS at all times the process unit is operating and at the intervals specified in paragraph (h)(1)(ii) of this section, except for required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), and any scheduled maintenance as defined in your site-specific monitoring plan.

(6) You must use all the data collected during all boiler operating hours in assessing the compliance with your operating limit except:

(i) Any data recorded during periods of monitoring system malfunctions or repairs associated with monitoring system malfunctions. You must report any monitoring system malfunctions as deviations in your compliance reports under 40 CFR 63.10031(c) or (g) (as applicable);

(ii) Any data recorded during periods when the monitoring system is out-of-control (as specified in your site-specific monitoring plan), repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or quality

control activities conducted during out-of-control periods. You must report any such periods as deviations in your compliance reports under 40 CFR 63.10031(c) or (g) (as applicable);

(iii) Any data recorded during required monitoring system quality assurance or quality control activities that temporarily interrupt the measurement of output data from the PM CPMS; and

(iv) Any data recorded during periods of startup or shutdown.

(7) You must record and report the results of PM CPMS system performance audits, in accordance with 40 CFR 63.10031(k). You must also record and make available upon request the dates and duration of periods from when the PM CPMS is out of control until completion of the corrective actions necessary to return the PM CPMS to operation consistent with your site-specific monitoring plan.

(i) If you choose to comply with the PM filterable emissions limit in lieu of metal HAP limits, you may choose to install, certify, operate, and maintain a PM CEMS and record and report the output of the PM CEMS as specified in paragraphs (i)(1) through (8) of this section. Compliance with the applicable PM emissions limit in Table 1 or 2 to this subpart is determined on a 30-boiler operating day rolling average basis.

(1) You must install and certify your PM CEMS according to section 4 of appendix C to this subpart.

(2) You must operate, maintain, and quality-assure the data from your PM CEMS according to section 5 of appendix C to this subpart.

(3) You must reduce the data from your PM CEMS to hourly averages in accordance with section 6.1 of appendix C to this subpart.

(4) You must collect data using the PM CEMS at all times the process unit is operating and at the intervals specified in paragraph (a) of this section, except for required monitoring system quality assurance or quality control activities and any scheduled maintenance as defined in your site-specific monitoring plan.

(5) You must use all the data collected during all boiler operating hours in assessing the compliance with your operating limit except:

(i) Any data recorded during periods of monitoring system malfunctions and repairs associated with monitoring system malfunctions. You must report any monitoring system malfunctions as deviations in your compliance reports under 40 CFR 63.10031(c) or (g) (as applicable);

(ii) Any data recorded during periods when the monitoring system is out-of-control (as specified in appendix C to this subpart), repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or quality control activities conducted during out-of-control periods. You must report any such periods as deviations in your compliance reports under 40 CFR 63.10031(c) or (g) (as applicable);

(iii) Any data recorded during required monitoring system quality assurance, quality control, or maintenance activities that temporarily interrupt the measurement of emissions (*e.g.*, calibrations, certain audits, routine probe maintenance); and

(iv) Any data recorded during periods of startup or shutdown.

(6) You must keep records and report data from your PM CEMS in accordance with section 7 of appendix C to this subpart.

(7) You must record and make available upon request the dates and duration of periods when the PM CEMS is out-of-control to completion of the corrective actions necessary to return the PM CEMS to operation consistent with your site-specific monitoring plan.

(8) You must calculate each 30-boiler operating day rolling average PM emission rate in units of the applicable emissions limit in Table 1 or 2 to this subpart, in accordance with section 6.2.4 of appendix C to this subpart.

(j) * * *

(4) You must collect data using the HAP metals CEMS at all times the process unit is operating and at the intervals specified in paragraph (a) of this section, except for required monitoring system quality assurance or quality control activities, and any scheduled maintenance as defined in your site-specific monitoring plan.

(i) You must use all the data collected during all boiler operating hours in assessing the compliance with your emission limit except:

(A) Any data collected during periods of monitoring system malfunctions and repairs associated with monitoring system malfunctions. You must report any monitoring system malfunctions as deviations in your compliance reports under 40 CFR 63.10031(c) or (g) (as applicable);

(B) Any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or quality control activities conducted during out-of-control periods. You must report any out of control periods as deviations in your compliance reports under 40 CFR 63.10031(c) or (g) (as applicable);

(C) Any data recorded during required monitoring system quality assurance or quality control activities that temporarily interrupt the measurement of emissions (*e.g.*, calibrations, certain audits, routine probe maintenance); and

(D) Any data recorded during periods of startup or shutdown.

(ii) You must record and report the results of HAP metals CEMS system performance audits, in accordance with 40 CFR 63.10031(k) You must also record and make available upon request the dates and duration of periods when the HAP metals CEMS is out of control to completion of the corrective actions necessary to return the HAP metals CEMS to operation consistent with your site-specific performance evaluation and quality control program plan.

* * * * *

6. Section 63.10011 is amended by revising paragraphs (e) and (g)(3) to read as follows:

§63.10011 How do I demonstrate initial compliance with the emissions limits and work practice standards?

* * * * *

(e) You must submit a Notification of Compliance Status in accordance with 40 CFR 63.10031(f)(4) or (h), as applicable, containing the results of the initial compliance demonstration, as specified in 40 CFR 63.10030(e).

* * * * *

(g) * * *

(3) You must report the emissions data recorded during startup and shutdown. If you are relying on paragraph (2) of the definition of startup in 40 CFR 63.10042, then for startup and shutdown incidents that occur on or prior to December 31, 2023, you must also report the applicable supplementary information in 40 CFR 63.10031(c)(5) in the semiannual compliance

report. For startup and shutdown incidents that occur on or after January 1, 2024, you must provide the applicable information in 40 CFR 63.10031(c)(5)(ii) and 40 CFR 63.10020(e) quarterly, in PDF files, in accordance with 40 CFR 63.10031(i).

* * * * *

7. Section 63.10020 is amended by revising paragraphs (a), (b), and (d) to read as follows:

§63.10020 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by §63.10000(d).

(b) You must operate the monitoring system and collect data at all required intervals at all times that the affected EGU is operating, except for required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments, and any scheduled maintenance as defined in your site-specific monitoring plan. You are required to affect monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

* * * * *

(d) Periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities excluding zero and span checks must be reported as time the monitor was inoperative (downtime) under 63.10(c). Failure to collect required quality-assured data during monitoring system malfunctions, monitoring system out-of-control periods, or repairs associated with monitoring system

malfunctions or monitoring system out-of-control periods is a deviation from the monitoring requirements.

* * * * *

8. Section 63.10021 is amended by:

- a. Revising paragraphs (e)(9) and (f);
- b. Removing and reserving paragraph (h)(3); and
- c. Revising paragraph (i).

The revisions read as follows:

§63.10021 How do I demonstrate continuous compliance with the emission limitations, operating limits, and work practice standards?

* * * * *

(e) * * *

(9) Prior to January 1, 2024, report the tune-up date electronically, in a PDF file, in your semiannual compliance report, as specified in 40 CFR 63.10031(f)(4) and (6) and, if requested by the Administrator, in hard copy, as specified in 40 CFR 63.10031(f)(5). On and after January 1, 2024, report the tune-up date electronically in your quarterly compliance report, in accordance with 40 CFR 63.10031(g) and section 10.2 of appendix E to this subpart. The tune-up report date is the date when tune-up requirements in paragraphs (e)(6) and (7) of this section are completed.

* * * * *

(f) You must submit the applicable reports and notifications required under 40 CFR 63.10031(a) through (k) to the Administrator electronically, using EPA's Emissions Collection and Monitoring Plan System (ECMPS) Client Tool. If the final date of any time period (or any deadline) for any of these submissions falls on a weekend or a Federal holiday, the time period

shall be extended to the next business day. Moreover, if the EPA Host System supporting the ECMPS Client Tool is offline and unavailable for submission of reports for any part of a day when a report would otherwise be due, the deadline for reporting is automatically extended until the first business day on which the system becomes available following the outage. Use of the ECMPS Client Tool to submit a report or notification required under this subpart satisfies any requirement under subpart A of this part to submit that same report or notification (or the information contained in it) to the appropriate EPA Regional office or state agency whose delegation request has been approved.

* * * * *

(i) If you are relying on paragraph 2 of the definition of startup in 40 CFR 63.10042, you must provide reports concerning activities and periods of startup and shutdown that occur on or prior to January 1, 2024, in accordance with 40 CFR 63.10031(c)(5), in your semiannual compliance report. For startup and shutdown incidents that occur on and after January 1, 2024, you must provide the applicable information referenced in 40 CFR 63.10031(c)(5)(ii) and 40 CFR 63.10020(e) quarterly, in PDF files, in accordance with 40 CFR 63.10031(i).

9. Section 63.10030 is amended by:

- a. In paragraph (e) introductory text revising the last sentence;
- b. Revising paragraph (e)(7) introductory text;
- c. Removing and reserving paragraph (e)(7)(i);
- d. Revising paragraph (e)(7)(iii) introductory text;
- e. Revising paragraph (e)(7)(iii)(A)(3);
- f. Adding in paragraph (e)(7)(iii)(B) the word “must” after the word “You”; and
- g. Adding in paragraph (e)(7)(iii)(C) the word “must” after the word “you”.

The revisions and additions read as follows:

§63.10030 What notifications must I submit and when?

* * * * *

(e) * * * The Notification of Compliance Status report must contain all of the information specified in paragraphs (e)(1) through (8) of this section, that applies to your initial compliance strategy.

* * * * *

(7) Except for requests to switch from one emission limit to another, as provided in paragraph (e)(7)(iii) of this section, your initial notification of compliance status shall also include the following information:

* * * * *

(iii) For each of your existing EGUs, identification of each emissions limit specified in Table 2 to this subpart with which you plan to comply initially. (*Note:* If, at some future date, you wish to switch from the limit specified in your initial notification of compliance status, you must follow the procedures and meet the conditions of paragraphs (e)(7)(iii)(A) through (C) of this section).

(A) * * *

(3) Your request includes performance stack test results or valid CMS data, obtained within 45 days prior to the date of your submission, demonstrating that each EGU or EGU emissions averaging group is in compliance with both the mass per heat input limit and the mass per gross output limit;

* * * * *

10. Section 63.10031 is amended by:

- a. Revising paragraphs (a), (b) introductory text, (b)(1), (2), (4), (5);
- b. Adding paragraph (b)(6);
- c. Revising paragraph (c) introductory text;
- d. Removing and reserving paragraphs (c)(5)(iii), (c)(5)(iv), and (c)(5)(v);
- e. Adding paragraph (c)(10);
- f. Revising paragraphs (d), (e), (f) introductory text, (f)(1), and (2);
- g. Removing and reserving paragraph (f)(3);
- h. Revising paragraphs (f)(4), (f)(6) introductory text, (f)(6)(vii), (f)(6)(xi), and (g); and
- i. Adding paragraphs (h), (i), (j) and (k), to read as follows:

§63.10031 What reports must I submit and when?

(a) You must submit each report in this section that applies to you.

(1) If you are required to (or elect to) monitor Hg emissions continuously, you must meet the electronic reporting requirements of appendix A to this subpart.

(2) If you elect to monitor HCl and/or HF emissions continuously, you must meet the electronic reporting requirements of appendix B to this subpart. Notwithstanding this requirement, if you opt to certify your HCl monitor according to Performance Specification 18 in appendix B to part 60 of this chapter and to use Procedure 6 in appendix F to part 60 of this chapter for on-going QA of the monitor, then, on and prior to December 31, 2023, report only hourly HCl emissions data and the results of daily calibration drift tests and relative accuracy test audits (RATAs) performed on or prior to that date; keep records of all of the other required certification and QA tests and report them, starting in 2024.

(3) If you elect to monitor filterable PM emissions continuously, you must meet the electronic reporting requirements of appendix C to this subpart. Electronic reporting of hourly

PM emissions data shall begin with the later of the first operating hour on or after January 1, 2024; or the first operating hour after completion of the initial PM CEMS correlation test.

(4) If you elect to demonstrate continuous compliance using a PM CPMS, you must meet the electronic reporting requirements of appendix D to this subpart. Electronic reporting of the hourly PM CPMS output shall begin with the later of the first operating hour on or after January 1, 2024; or the first operating hour after completion of the initial performance stack test that establishes the operating limit for the PM CPMS.

(5) If you elect to monitor SO₂ emission rate continuously as a surrogate for HCl, you must use the ECMPS Client Tool to submit the following information to EPA (except where it is already required to be reported or has been previously provided under the Acid Rain Program or another emissions reduction program that requires the use of part 75 of this chapter):

(i) Monitoring plan information for the SO₂ CEMS and for any additional monitoring systems that are required to convert SO₂ concentrations to units of the emission standard, in accordance with sections 75.62 and 75.64(a)(4) of this chapter;

(ii) Certification, recertification, quality-assurance, and diagnostic test results for the SO₂ CEMS and for any additional monitoring systems that are required to convert SO₂ concentrations to units of the emission standard, in accordance with section 75.64(a)(5); and

(iii) Quarterly electronic emissions reports. You must submit an electronic quarterly report within 30 days after the end of each calendar quarter, starting with a report for the calendar quarter in which the initial 30 boiler operating day performance test begins. Each report must include the following information:

(A) The applicable operating data specified in section 75.57(b) of this chapter;

(B) An hourly data stream for the unadjusted SO₂ concentration (in ppm, rounded to one

decimal place), and separate unadjusted hourly data streams for the other parameters needed to convert the SO₂ concentrations to units of the standard. (*Note:* If a default moisture value is used in the emission rate calculations, an hourly data stream is not required for moisture; rather, the default value must be reported in the electronic monitoring plan);

(C) An hourly SO₂ emission rate data stream, in units of the standard (*i.e.*, lb/MMBtu or lb/MWh, as applicable), calculated according to 40 CFR 63.10007(e) and (f)(1), rounded to the same precision as the emission standard (*i.e.*, with one leading non-zero digit and one decimal place), expressed in scientific notation. Use the following rounding convention: if the digit immediately following the first decimal place is 5 or greater, round the first decimal place upward (increase it by one); if the digit immediately following the first decimal place is 4 or less, leave the first decimal place unchanged;

(D) The results of all required daily quality-assurance tests of the SO₂ monitor and the additional monitors used to convert SO₂ concentration to units of the standard, as specified in appendix B to part 75 of this chapter; and

(E) A compliance certification, which includes a statement, based on reasonable inquiry of those persons with primary responsibility for ensuring that all SO₂ emissions from the affected EGUs under this subpart have been correctly and fully monitored, by a responsible official with that official's name, title, and signature, certifying that, to the best of his or her knowledge, the report is true, accurate, and complete. You must submit such a compliance certification statement in support of each quarterly report.

(b) You must submit semiannual compliance reports according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in 40 CFR 63.9984 (or, if applicable, the extended compliance date approved under 40 CFR 63.6(i)(4)) and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in 40 CFR 63.9984 (or, if applicable, the extended compliance date approved under 40 CFR 63.6(i)(4)).

(2) The first compliance report must be submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in 40 CFR 63.9984 (or, if applicable, the extended compliance date approved under 40 CFR 63.6(i)(4)).

* * * * *

(4) Each subsequent compliance report must be submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), through the reporting period that ends December 31, 2023, you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(6) The final semiannual compliance report shall cover the reporting period from July 1, 2023, through December 31, 2023. Quarterly compliance reports shall be submitted thereafter, in

accordance with paragraph (g) of this section, starting with a report covering the first calendar quarter of 2024.

(c) The semiannual compliance report must contain the information required in paragraphs (c)(1) through (10) of this section.

* * * * *

(10) If you had any process or control equipment malfunction(s) during the reporting period, you must include the number, duration, and a brief description for each type of malfunction which occurred during the semiannual reporting period which caused or may have caused any applicable emission limitation to be exceeded.

(d) Excess emissions and deviation reporting. For EGUs whose owners or operators rely on a CMS to comply with an emissions or operating limit, the semiannual compliance reports described in paragraph (c) of this section must include the excess emissions and monitor downtime summary report described in 40 CFR 63.10(e)(3)(vi). However, starting with the first calendar quarter of 2024, reporting of the information under 40 CFR 63.10(e)(3)(vi) (and under paragraph (e)(3)(v), if the applicable excess emissions and/or monitor downtime threshold is exceeded) is discontinued for all CMS, and you must, instead, include in the quarterly compliance reports described in paragraph (g) of this section the applicable data elements in section 13 of appendix E to this subpart for any “deviation” (as defined in 40 CFR 63.10042 and elsewhere in this subpart) that occurred during the calendar quarter. If there were no deviations, you must include a statement to that effect in the quarterly compliance report.

(e) Each affected source that has obtained a title V operating permit pursuant to part 70 or part 71 of this chapter must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an

affected source submits a semiannual compliance report pursuant to paragraphs (c) and (d) of this section, or two quarterly compliance reports covering the appropriate calendar half pursuant to paragraph (g) of this section, along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report(s) includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report(s) satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of the compliance report(s) does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(f) For each performance stack test completed prior to January 1, 2024, (including 30- (or 90-) boiler operating day Hg LEE demonstration tests and PM tests to establish operating limits for PM CPMS), you must submit a PDF test report in accordance with paragraph (f)(6) of this section, no later than 60 days after the date on which the testing is completed. For each test completed on or after January 1, 2024, in accordance with 40 CFR 63.10031(g), submit the applicable reference method information in sections 17 through 31 of appendix E to this subpart along with the quarterly compliance report for the calendar quarter in which the test was completed.

(1) For each RATA of an Hg, HCl, HF, or SO₂ monitoring system completed prior to January 1, 2024, and for each PM CEMS correlation test, each relative response audit (RRA) and each response correlation audit (RCA) of a PM CEMS completed prior to that date, you must submit a PDF test report in accordance with paragraph (f)(6) of this section, no later than 60 days after the date on which the test is completed. For each SO₂ or Hg RATA completed on or after January 1, 2024, you must submit the applicable reference method information in sections 17

through 31 of appendix E to this subpart prior to or concurrent with the relevant quarterly emissions report. For HCl or HF RATAs, and for correlation tests, RRAs, and RCAs of PM CEMS that are completed on or after January 1, 2024, submit the appendix E reference method information together with the summarized electronic test results, in accordance with section 11.4 of appendix B to this subpart or section 7.2.4 of appendix C to this part, as applicable.

(2) If, for a particular EGU or a group of EGUs serving a common stack, you have elected to demonstrate compliance using a PM CEMS, an approved HAP metals CEMS, or a PM CPMS, you must submit quarterly PDF reports in accordance with paragraph (f)(6) of this section, which include all of the 30-boiler operating day rolling average emission rates derived from the CEMS data or the 30-boiler operating day rolling average responses derived from the PM CPMS data (as applicable). The quarterly reports are due within 60 days after the reporting periods ending on March 31st, June 30th, September 30th, and December 31st. Submission of these quarterly reports in PDF files shall end with the report that covers the fourth calendar quarter of 2023. Beginning with the first calendar quarter of 2024, the compliance averages shall no longer be reported separately, but shall be incorporated into the quarterly compliance reports described in paragraph (g) of this section. In addition to the compliance averages for PM CEMS, PM CPMS, and/or HAP metals CEMS, the quarterly compliance reports described in paragraph (g) of this section must also include the 30- (or, if applicable 90-) boiler operating day rolling average emission rates for Hg, HCl, HF, and/or SO₂, if you have elected to (or are required to) continuously monitor these pollutants. Further, if your EGU or common stack is in an averaging plan, your quarterly compliance reports must identify all of the EGUs or common stacks in the plan and must include all of the 30- (or 90-) group boiler operating day rolling weighted average emission rates (WAERs) for the averaging group.

(3) [Reserved].

(4) You must submit semiannual compliance reports as required under paragraphs (b) through (d) of this section, ending with a report covering the semiannual period from July 1 through December 31, 2023, and Notifications of Compliance Status as required under section 63.10030(e), as PDF files. Quarterly compliance reports shall be submitted in XML format thereafter, in accordance with paragraph (g) of this section, starting with a report covering the first calendar quarter of 2024.

* * * * *

(6) All reports and notifications described in paragraphs (f) introductory text, (f)(1), (2), and (4) of this section shall be submitted to the EPA in the specified format and at the specified frequency, using the ECMPS Client Tool. Each PDF version of a stack test report, CEMS RATA report, PM CEMS correlation test report, RRA report, and RCA report must include sufficient information to assess compliance and to demonstrate that the reference method testing was done properly. Note that EPA will continue to accept, as necessary, PDF reports that are being phased out at the end of 2023, if the submission deadlines for those reports extend beyond December 31, 2023. The following data elements must be entered into the ECMPS Client Tool at the time of submission of each PDF file:

* * * * *

(vii) An indication of the type of PDF report or notification being submitted;

* * * * *

(xi) The date the performance test was completed (if applicable) and the test number (if applicable); and

* * * * *

(g) Starting with a report for the first calendar quarter of 2024, you must use the ECMPS Client Tool to submit quarterly electronic compliance reports. Each quarterly compliance report shall include the applicable data elements in sections 2 through 13 of appendix E to this subpart. For each stack test summarized in the compliance report, you must also submit the applicable reference method information in sections 17 through 31 of appendix E to this subpart. The compliance reports and associated appendix E information must be submitted no later than 60 days after the end of each calendar quarter.

(h) On and after January 1, 2024, initial Notifications of Compliance Status (if any) shall be submitted in accordance with 40 CFR 63.9(h)(2)(ii), as PDF files, using the ECMPS Client Tool. The applicable data elements in paragraphs (f)(6)(i) through (xii) of this section must be entered into ECMPS with each Notification.

(i) If you have elected to use paragraph (2) of the definition of “startup” in 40 CFR 63.10042, then, for startup and shutdown incidents that occur on or prior to December 31, 2023, you must include the information in 40 CFR 63.10031(c)(5) in the semiannual compliance report, in a PDF file. If you have elected to use paragraph (2) of the definition of “startup” in 40 CFR 63.10042, then, for startup and shutdown event(s) that occur on or after January 1, 2024, you must use the ECMPS Client Tool to submit the information in 40 CFR 63.10031(c)(5) and 40 CFR 63.10020(e) along with each quarterly compliance report, in a PDF file, starting with a report for the first calendar quarter of 2024. The applicable data elements in paragraphs (f)(6)(i) through (xii) of this section must be entered into ECMPS with each startup and shutdown report.

(j) If you elect to use a certified PM CEMS to monitor PM emissions continuously to demonstrate compliance with this subpart and have begun recording valid data from the PM CEMS prior to **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE**

FEDERAL REGISTER], you must use the ECMPS Client Tool to submit a detailed report of your PS 11 correlation test (see appendix B to part 60 of this chapter) in a PDF file no later than 60 days after that date. For a correlation test completed on or after **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, but prior to January 1, 2024, you must submit the PDF report no later than 60 days after the date on which the test is completed. For a correlation test completed on or after January 1, 2024, you must submit the PDF report according to section 7.2.4 of appendix C to this subpart. The applicable data elements in paragraph (f)(6)(i) through (xii) of this section must be entered into ECMPS with the PDF report.

(k) If you elect to demonstrate compliance using a PM CPMS or an approved HAP metals CEMS, you must submit quarterly reports of your QA/QC activities (*e.g.*, calibration checks, performance audits), in a PDF file, beginning with a report for the first quarter of 2024, if the PM CPMS or HAP metals CEMS is used for the compliance demonstration in that quarter. Otherwise, submit a report for the first calendar quarter in which the PM CPMS or HAP metals CEMS is used to demonstrate compliance. These reports are due no later than 60 days after the end of each calendar quarter. The applicable data elements in paragraph (f)(6)(i) through (xii) of this section must be entered into ECMPS with the PDF report.

11. Section 63.10032 is amended by revising paragraphs (a) introductory text and (a)(1) to read as follows:

§63.10032 What records must I keep?

(a) You must keep records according to paragraphs (a)(1) and (2) of this section. If you are required to (or elect to) continuously monitor Hg and/or HCl and/or HF and/or PM emissions, or if you elect to use a PM CPMS, you must keep the records required under appendix

A and/or appendix B and/or appendix C and/or appendix D to this subpart. If you elect to conduct periodic (*e.g.*, quarterly or annual) performance stack tests, then, for each test completed on or after January 1, 2024, you must keep records of the applicable data elements under 40 CFR 63.7(g). You must also keep records of all data elements and other information in appendix E to this subpart that apply to your compliance strategy.

(1) In accordance with 40 CFR 63.10(b)(2)(xiv), a copy of each notification or report that you submit to comply with this subpart. You must also keep records of all supporting documentation for the initial Notifications of Compliance Status, semiannual compliance reports, or quarterly compliance reports that you submit.

* * * * *

12. Section 63.10042 is amended by:

- a. In the definition “*Diluent cap*” adding the word “PM,” after the word “HF,”;
- b. In the definition “*Monitoring system malfunction or out of control period*” removing the words “*or out of control period*”; and
- c. Adding the definition “*Out of control period*” in alphabetical order.

The addition reads as follows:

§63.10042 What definitions apply to this subpart?

* * * * *

Out-of-control period, as it pertains to continuous monitoring systems, means any period:

- (1) Beginning with the hour corresponding to the completion of a daily calibration or quality assurance audit that indicates that the instrument fails to meet the applicable acceptance criteria; and

(2) Ending with the hour corresponding to the completion of an additional calibration or quality assurance audit following corrective action showing that the instrument meets the applicable acceptance criteria.

* * * * *

13. Table 3 to subpart UUUUU is amended by revising the entries “3. A coal-fired, liquid oil-fired (excluding limited-use liquid oil-fired subcategory units), or solid oil-derived fuel-fired EGU during startup” and “4. A coal-fired, liquid oil-fired (excluding limited-use liquid oil-fired subcategory units), or solid oil-derived fuel-fired EGU during shutdown” to read as follows:

Table 3 to Subpart UUUUU of Part 63—Work Practice Standards

* * * * *

If your EGU is . . .	You must meet the following . . .
* * * * *	* * * * *
3. A coal-fired, liquid oil-fired (excluding limited-use liquid oil-fired subcategory units), or solid oil-derived fuel-fired EGU during startup	a. You have the option of complying using either of the following work practice standards: (1) If you choose to comply using paragraph (1) of the definition of “startup” in §63.10042, you must operate all CMS during startup. Startup means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate

electricity for sale over the grid or for any other purpose (including on site use). For startup of a unit, you must use clean fuels as defined in §63.10042 for ignition. Once you convert to firing coal, residual oil, or solid oil-derived fuel, you must engage all of the applicable control technologies except dry scrubber and SCR. You must start your dry scrubber and SCR systems, if present, appropriately to comply with relevant standards applicable during normal operation. You must comply with all applicable emissions limits at all times except for periods that meet the applicable definitions of startup and shutdown in this subpart. You must keep records during startup periods. You must provide reports concerning activities and startup periods, as specified in §63.10011(g) and §63.10021(h) and (i). If you elect to use paragraph (2) of the definition of startup in 40 CFR 63.10042, you must report the applicable information in 40 CFR 63.10031(c)(5) concerning startup periods as follows: for startup periods that occur on or prior to December 31, 2023, in PDF files in the semiannual compliance report; for startup periods that occur on or after January 1, 2024, quarterly, in PDF files, according to 40 CFR 63.10031(i).

(2) If you choose to comply using paragraph (2) of the definition of “startup” in §63.10042, you must operate all CMS during

	<p>startup. You must also collect appropriate data, and you must calculate the pollutant emission rate for each hour of startup.</p>
	<p>For startup of an EGU, you must use one or a combination of the clean fuels defined in §63.10042 to the maximum extent possible, taking into account considerations such as boiler or control device integrity, throughout the startup period. You must have sufficient clean fuel capacity to engage and operate your PM control device within one hour of adding coal, residual oil, or solid oil-derived fuel to the unit. You must meet the startup period work practice requirements as identified in §63.10020(e).</p>
	<p>Once you start firing coal, residual oil, or solid oil-derived fuel, you must vent emissions to the main stack(s). You must comply with the applicable emission limits beginning with the hour after startup ends. You must engage and operate your PM control(s) within 1 hour of first firing of coal, residual oil, or solid oil-derived fuel.</p>
	<p>You must start all other applicable control devices as expeditiously as possible, considering safety and manufacturer/supplier recommendations, but, in any case, when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than this subpart that require operation of the control devices.</p>

	<p>b. Relative to the syngas not fired in the combustion turbine of an IGCC EGU during startup, you must either: (1) Flare the syngas, or (2) route the syngas to duct burners, which may need to be installed, and route the flue gas from the duct burners to the heat recovery steam generator.</p>
	<p>c. If you choose to use just one set of sorbent traps to demonstrate compliance with the applicable Hg emission limit, you must comply with the limit at all times; otherwise, you must comply with the applicable emission limit at all times except for startup and shutdown periods.</p>
	<p>d. You must collect monitoring data during startup periods, as specified in §63.10020(a) and (e). You must keep records during startup periods, as provided in §§63.10021(h) and 63.10032. You must provide reports concerning activities and startup periods, as specified in §§63.10011(g), 63.10021(i), and 63.10031. If you elect to use paragraph (2) of the definition of startup in 40 CFR 63.10042, you must report the applicable information in 40 CFR 63.10031(c)(5) concerning startup periods as follows: for startup periods that occur on or prior to December 31, 2023, in PDF files in the semiannual compliance report; for startup periods that occur on or after January 1, 2024, quarterly, in PDF files, according to 40 CFR 63.10031(i).</p>

<p>4. A coal-fired, liquid oil-fired (excluding limited-use liquid oil-fired subcategory units), or solid oil-derived fuel-fired EGU during shutdown</p>	<p>You must operate all CMS during shutdown. You must also collect appropriate data, and you must calculate the pollutant emission rate for each hour of shutdown for those pollutants for which a CMS is used.</p> <p>While firing coal, residual oil, or solid oil-derived fuel during shutdown, you must vent emissions to the main stack(s) and operate all applicable control devices and continue to operate those control devices after the cessation of coal, residual oil, or solid oil-derived fuel being fed into the EGU and for as long as possible thereafter considering operational and safety concerns. In any case, you must operate your controls when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than this subpart and that require operation of the control devices.</p>
	<p>If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel must be one or a combination of the clean fuels defined in §63.10042 and must be used to the maximum extent possible, taking into account considerations such as not compromising boiler or control device integrity.</p>
	<p>Relative to the syngas not fired in the combustion turbine of an IGCC EGU during shutdown, you must either: (1) Flare the</p>

	<p>syngas, or (2) route the syngas to duct burners, which may need to be installed, and route the flue gas from the duct burners to the heat recovery steam generator.</p>
	<p>You must comply with all applicable emission limits at all times except during startup periods and shutdown periods at which time you must meet this work practice. You must collect monitoring data during shutdown periods, as specified in §63.10020(a). You must keep records during shutdown periods, as provided in §§63.10032 and 63.10021(h). Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown. You must provide reports concerning activities and shutdown periods, as specified in §§63.10011(g), 63.10021(i), and 63.10031. If you elect to use paragraph (2) of the definition of startup in 40 CFR 63.10042, you must report the applicable information in 40 CFR 63.10031(c)(5) concerning shutdown periods as follows: for shutdown periods that occur on or prior to December 31, 2023, in PDF files in the semiannual compliance report; for shutdown periods that occur on or after January 1, 2024, quarterly, in PDF files, according to 40 CFR 63.10031(i).</p>

* * * * *

14. Table 8 to subpart UUUUU is revised to read as follows:

TABLE 8 TO SUBPART UUUUU OF PART 63—REPORTING REQUIREMENTS

In accordance with 40 CFR 63.10031, you must meet the following reporting requirements, as they apply to your compliance strategy:

You must submit the following reports . . .
1. The electronic reports required under 40 CFR 63.10031 (a)(1), if you continuously monitor Hg emissions.
2. The electronic reports required under 40 CFR 63.10031 (a)(2), if you continuously monitor HCl and/or HF emissions. Where applicable, these reports are due no later than 30 days after the end of each calendar quarter.
3. The electronic reports required under 40 CFR 63.10031(a)(3), if you continuously monitor PM emissions. Reporting of hourly PM emissions data using ECMPS shall begin with the first operating hour after: January 1, 2024, or the hour of completion of the initial PM CEMS correlation test, whichever is later.

Where applicable, these reports are due no later than 30 days after the end of each calendar quarter.

4. The electronic reports required under 40 CFR 63.10031(a)(4), if you elect to use a PM CPMS.

Reporting of hourly PM CPMS response data using ECMPS shall begin with the first operating hour after January 1, 2024, or the first operating hour after completion of the initial performance stack test that establishes the operating limit for the PM CPMS, whichever is later.

Where applicable, these reports are due no later than 30 days after the end of each calendar quarter.

5. The electronic reports required under 40 CFR 63.10031(a)(5), if you continuously monitor SO₂ emissions.

Where applicable, these reports are due no later than 30 days after the end of each calendar quarter.

6. PDF reports for all performance stack tests completed prior to January 1, 2024 (including 30- or 90-boiler operating day Hg LEE test reports and PM test reports to set operating limits for PM CPMS), according to the introductory text of 40 CFR 63.10031(f) and 40 CFR 63.10031(f)(6).

For each test, submit the PDF report no later than 60 days after the date on which testing is completed.

For a PM test that is used to set an operating limit for a PM CPMS, the report must also include the information in 40 CFR 63.10023(b)(2)(vi).

For each performance stack test completed on or after January 1, 2024, submit the test results in the relevant quarterly compliance report under 40 CFR 63.10031(g), together with the applicable reference method information in sections 17 through 31 of appendix E to this subpart.

7. PDF reports for all RATAs of Hg, HCl, HF, and/or SO₂ monitoring systems completed prior to January 1, 2024, and for correlation tests, RRAs and/or RCAs of PM CEMS completed prior to January 1, 2024, according to 40 CFR 63.10031(f)(1) and (6).

For each test, submit the PDF report no later than 60 days after the date on which testing is completed.

For each SO₂ or Hg system RATA completed on or after January 1, 2024, submit the electronic test summary required by appendix A to this subpart or part 75 of this chapter (as applicable) together with the applicable reference method

information in sections 17 through 30 of appendix E to this subpart, either prior to or concurrent with the relevant quarterly emissions report.

For each HCl or HF system RATA, and for each correlation test, RRA, and RCA of a PM CEMS completed on or after January 1, 2024, submit the electronic test summary in accordance with section 11.4 of appendix B to this subpart or section 7.2.4 of appendix C to this part, as applicable, together with the applicable reference method information in sections 17 through 30 of appendix E to this subpart.

8. Quarterly reports, in PDF files, that include all 30-boiler operating day rolling averages in the reporting period derived from your PM CEMS, approved HAP metals CEMS, and/or PM CPMS, according to 40 CFR 63.10031(f)(2) and (6). These reports are due no later than 60 days after the end of each calendar quarter.

The final quarterly rolling averages report in PDF files shall cover the fourth calendar quarter of 2023.

Starting with the first quarter of 2024, you must report all 30-boiler operating day rolling averages for PM CEMS, approved HAP metals CEMS, PM CPMS, Hg CEMS, Hg sorbent trap systems, HCl CEMS, HF CEMS, and/or SO₂ CEMS (or 90-boiler operating day rolling averages for Hg systems), in XML format, in the quarterly compliance reports required under 40 CFR 63.10031(g).

If your EGU or common stack is in an averaging plan, each quarterly compliance report must identify the EGUs in the plan and include all of the 30- or 90- group boiler operating day WAERs for the averaging group.

The quarterly compliance reports must be submitted no later than 60 days after the end of each calendar quarter.

9. The semiannual compliance reports described in 40 CFR 63.10031(c) and (d), in PDF files, according to 40 CFR 63.10031(f)(4) and (6). The due dates for these reports are specified in 40 CFR 63.10031(b).

The final semiannual compliance report shall cover the period from July 1, 2023, through December 31, 2023.

10. Notifications of compliance status, in PDF files, according to 40 CFR 63.10031(f)(4) and (6) until December 31, 2023, and according to 40 CFR 63.10031(h) thereafter.

11. Quarterly electronic compliance reports, in accordance with 40 CFR 63.10031(g), starting with a report for the first calendar quarter of 2024. The reports must be in XML format and must include the applicable data elements in sections 2 through 13 of appendix E to this subpart.

These reports are due no later than 60 days after the end of each calendar quarter.

12. Quarterly reports, in PDF files, that include the applicable information in 40 CFR 63.10031(c)(5)(ii) and 40 CFR 63.10020(e) pertaining to startup and shutdown events, starting with a report for the first calendar quarter of 2024, if you have elected to use paragraph 2 of the definition of startup in 40 CFR 63.10042 (see 40 CFR 63.10031(i)).

These PDF reports shall be submitted no later than 60 days after the end of each calendar quarter, along with the quarterly compliance reports required under 40 CFR 63.10031(g).

13. A test report for the PS 11 correlation test of your PM CEMS, in accordance with 40 CFR 63.10031(j).

If, prior to **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, you have begun using a certified PM CEMS to demonstrate compliance with this subpart, use the ECMPS Client Tool to submit the report, in a PDF file, no later than 60 days after that date.

For correlation tests completed on or after **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, but prior to January 1, 2024, submit the report, in a PDF file, no later than 60 days after the date on which the test is completed.

For correlation tests completed on or after January 1, 2024, submit the test results electronically, according to section 7.2.4 of appendix C to this subpart, together with the applicable reference method data in sections 17 through 31 of appendix E to this subpart.

14. Quarterly reports that include the QA/QC activities for your PM CPMS or approved HAP metals CEMS (as applicable), in PDF files, according to 40 CFR 63.10031(k).

The first report shall cover the first calendar quarter of 2024, if the PM CPMS or HAP metals CEMS is in use during that quarter. Otherwise, reporting begins with the first calendar quarter in which the PM CPMS or HAP metals CEMS is used to demonstrate compliance.

These reports are due no later than 60 days after the end of each calendar quarter.

* * * * *

15. Table 9 to subpart UUUUU is amended by:

- a. Revising the entries “63.9” and “63.10(c)(7) and (8)”; and
- b. Adding the entry “§63.10(e)(3)(v) and (vi)”.

The addition and revision read as follows:

Table 9 to Subpart UUUUU of Part 63—Applicability of General Provisions to Subpart UUUUU

* * * * *

Citation	Subject	Applies to subpart UUUUU
* * * * *		
§63.9	Notification Requirements	Yes, except (1) for the 60-day notification prior to conducting a performance test in §63.9(e); instead use a 30-day notification period per §63.10030(d), (2) the notification of the CMS performance evaluation in §63.9(g)(1) is limited to RATAs, and (3) the information required per §63.9(h)(2)(i); instead provide the applicable information in §63.10030(e)(1) through (8), for the initial notification of compliance status, only.
	* * * * *	
§63.10(c)(7)	Additional recordkeeping requirements for CMS — identifying exceedances and excess emissions	Applies only through December 31, 2023
§63.10(c)(8)	Additional recordkeeping	Applies only through December 31, 2023

	requirements for CMS—identifying exceedances and excess emissions	
	* * * * *	
§63.10(e)(3)(v) and (vi)	Excess emissions and CMS performance reports	Applies only through December 31, 2023
	* * * * *	

16. Appendix A to subpart UUUUU is amended by revising sections 5.1.1, 7.1.1.2.1, 7.1.3.3, 7.1.4.3, 7.1.8.2, and 7.2.3.1 to read as follows:

APPENDIX A TO SUBPART UUUUU OF PART 63 – HG MONITORING

PROVISIONS

* * * * *

5. ONGOING QUALITY ASSURANCE (QA) AND DATA VALIDATION

* * * * *

5.1.1 *Required QA Tests.* Periodic QA testing of each Hg CEMS is required following initial certification. The required QA tests, the test frequencies, and the performance specifications that must be met are summarized in Table A-2, below. All tests must be performed with the affected unit(s) operating (*i.e.*, combusting fuel), however, the daily calibration may optionally be performed off-line. The RATA must be performed at normal load, but no particular

load level is required for the other tests. For each test, follow the same basic procedures in section 4.1.1 of this appendix that were used for initial certification.

* * * * *

7. RECORDKEEPING AND REPORTING

* * * * *

7.1.1.2.1 *Electronic.* The electronic monitoring plan records must include the following: unit or stack ID number(s); monitoring location(s); the Hg monitoring methodologies used; emissions controls; Hg monitoring system information, including, but not limited to: unique system and component ID numbers; the make, model, and serial number of the monitoring equipment; the sample acquisition method; formulas used to calculate Hg emissions; and Hg monitor span and range information. The electronic monitoring plan shall be evaluated and submitted using the ECMPS Client Tool provided by the Clean Air Markets Division in the Office of Atmospheric Programs of the EPA.

* * * * *

7.1.3.3 The hourly Hg concentration, if a quality-assured value is obtained for the hour ($\mu\text{g}/\text{scm}$, with one leading non-zero digit and one decimal place, expressed in scientific notation). Use the following rounding convention: if the digit immediately following the first decimal place is 5 or greater, round the first decimal place upward (increase it by one); if the digit immediately following the first decimal place is 4 or less, leave the first decimal place unchanged;

* * * * *

7.1.4.3 The hourly Hg concentration, if a quality-assured value is obtained for the hour ($\mu\text{g}/\text{scm}$, with one leading non-zero digit and one decimal place, expressed in scientific

notation). Use the following rounding convention: if the digit immediately following the first decimal place is 5 or greater, round the first decimal place upward (increase it by one); if the digit immediately following the first decimal place is 4 or less, leave the first decimal place unchanged. Note that when a single quality-assured Hg concentration value is obtained for a particular data collection period, that single concentration value is applied to each operating hour of the data collection period.

* * * * *

7.1.8.2 The hourly Hg emissions rate (lb/TBtu or lb/GWh, as applicable), calculated according to section 6.2.1 or 6.2.2 of this appendix, rounded to the same precision as the standard (*i.e.*, with one leading non-zero digit and one decimal place, expressed in scientific notation), if valid values of Hg concentration and all other required parameters (stack gas volumetric flow rate, diluent gas concentration, electrical load, and moisture data, as applicable) are obtained for the hour. Use the following rounding convention: if the digit immediately following the first decimal place is 5 or greater, round the first decimal place upward (increase it by one); if the digit immediately following the first decimal place is 4 or less, leave the first decimal place unchanged;

* * * * *

7.2.3.1 For an EGU that begins reporting hourly Hg concentrations with a previously-certified Hg monitoring system, submit the monitoring plan information in section 7.1.1.2 of this appendix prior to or concurrent with the first required quarterly emissions report. For a new EGU, or for an EGU switching to continuous monitoring of Hg emissions after having implemented another allowable compliance option under this subpart, submit the information in section 7.1.1.2 of this appendix at least 21 days prior to the start of initial certification testing of

the CEMS. Also submit the monitoring plan information in section 75.53(g) pertaining to any required flow rate, diluent gas, and moisture monitoring systems within the applicable time frame specified in this section, if the required records are not already in place.

* * * * *

17. Appendix B to subpart UUUUU is amended by:

- a. Revising the heading and introductory text of section 2.3;
- b. Revising sections 9.4, 10.1.3.3, 10.1.7.2, 10.1.8.1.1, 10.1.8.1.2, and 10.1.8.1.3;
- c. Adding sections 10.1.8.1.4 through 10.1.8.1.12;
- d. Revising sections 11.3.1, 11.4 introductory text, and 11.4.1;
- e. Adding sections 11.4.1.1 through 11.4.1.9;
- f. Revising section 11.4.2 introductory text;
- g. Revising sections 11.4.3.11 and 11.4.3.12;
- h. Re-designating section 11.4.3.13 as 11.4.3.14;
- i. Adding new section 11.4.3.13;
- j. Re-designating section 11.4.4 as 11.4.13;
- k. Adding sections: 11.4.4 introductory text; 11.4.4.1 through 11.4.4.7; 11.4.5 introductory text; 11.4.5.1; 11.4.5.1.1 through 11.4.5.1.9; 11.4.5.2 introductory text; 11.4.5.2.1 through 11.4.5.2.6; 11.4.6 introductory text; 11.4.6.1 through 11.4.6.8, 11.4.7 introductory text; 11.4.7.1 through 11.4.7.6; 11.4.8 introductory text; 11.4.8.1 through 11.4.8.15; 11.4.9 introductory text; 11.4.9.1 through 11.4.9.5; 11.4.10 introductory text; 11.4.10.1 through 11.4.10.8; 11.4.11 introductory text; 11.4.11.1 through 11.4.11.7; 11.4.12 introductory text; 11.4.12.1 through 11.4.12.9; and 11.4.13; and revising section 11.5.1.

The revisions and additions read as follows:

APPENDIX B TO SUBPART UUUUU OF PART 63—HCL AND HF MONITORING PROVISIONS

* * * * *

2. MONITORING OF HCL AND/OR HF EMISSIONS

* * * * *

2.3 Monitoring System Equipment, Supplies, Definitions, and General Operation.

The following provisions apply:

* * * * *

9. DATA REDUCTION AND CALCULATIONS

* * * * *

9.4 Use Equation A-5 in appendix A of this subpart to calculate the required 30-boiler operating day rolling average HCl or HF emission rates. Report each 30-boiler operating day rolling average to the same precision as the standard (*i.e.*, with one leading non-zero digit and one decimal place), expressed in scientific notation. The term E_{ho} in Equation A-5 must be in the units of the applicable emissions limit.

* * * * *

10. RECORDKEEPING REQUIREMENTS

* * * * *

10.1.3.3 The pollutant concentration, for each hour in which a quality-assured value is obtained. For HCl and HF, record the data in parts per million (ppm), with one leading non-zero digit and one decimal place, expressed in scientific notation. Use the following rounding convention: if the digit immediately following the first decimal place is 5 or greater, round the

first decimal place upward (increase it by one); if the digit immediately following the first decimal place is 4 or less, leave the first decimal place unchanged.

* * * * *

10.1.7.2 The hourly HCl and/or HF emissions rate (lb/MMBtu, or lb/MWh, as applicable), for each hour in which valid values of HCl or HF concentration and all other required parameters (stack gas volumetric flow rate, diluent gas concentration, electrical load, and moisture data, as applicable) are obtained for the hour. Round off the emission rate to the same precision as the standard (*i.e.*, with one leading non-zero digit and one decimal place, expressed in scientific notation). Use the following rounding convention: if the digit immediately following the first decimal place is 5 or greater, round the first decimal place upward (increase it by one); if the digit immediately following the first decimal place is 4 or less, leave the first decimal place unchanged;

* * * * *

10.1.8.1.1 For each required 7-day and daily calibration drift test or daily calibration error test (including daily calibration transfer standard tests) of the HCl or HF CEMS, record the test date(s) and time(s), reference gas value(s), monitor response(s), and calculated calibration drift or calibration error value(s). If you use the dynamic spiking option for the mid-level calibration drift check under PS-18, you must also record the measured concentration of the native HCl in the flue gas before and after the spike and the spiked gas dilution factor. When using an IP-CEMS under PS-18, you must also record the measured concentrations of the native HCl before and after introduction of each reference gas, the path lengths of the calibration cell and the stack optical path, the stack and calibration cell temperatures, the instrument line strength factor, and the calculated equivalent concentration of reference gas.

10.1.8.1.2 For the required gas audits of an FTIR HCl or HF CEMS that is following PS 15, record the date and time of each spiked and unspiked sample, the audit gas reference values and uncertainties. Keep records of all calculations and data analyses required under sections 9.1 and 12.1 of Performance Specification 15, and the results of those calculations and analyses.

10.1.8.1.3 For each required RATA of an HCl or HF CEMS, record the beginning and ending date and time of each test run, the reference method(s) used, and the reference method and HCl or HF CEMS run values. Keep records of stratification tests performed (if any), all of the raw field data, relevant process operating data, and all of the calculations used to determine the relative accuracy.

10.1.8.1.4 For each required beam intensity test of an HCl IP-CEMS under PS-18, record the test date and time, the known attenuation value (%) used for the test, the concentration of the high-level reference gas used, the full-beam and attenuated beam intensity levels, the measured HCl concentrations at full-beam intensity and attenuated intensity and the percent difference between them, and the results of the test. For each required daily beam intensity check of an IP-CEMS under Procedure 6, record the beam intensity measured including the units of measure and the results of the check.

10.1.8.1.5 For each required measurement error (ME) test of an HCl monitor, record the date and time of each gas injection, the reference gas concentration (low, mid, or high) and the monitor response for each of the three injections at each of the three levels. Also record the average monitor response and the ME at each gas level and the related calculations. For ME tests conducted on IP-CEMS, also record the measured concentrations of the native HCl before and after introduction of each reference gas, the path lengths of the calibration cell and the stack

optical path, the stack and calibration cell temperatures, the stack and calibration cell pressures, the instrument line strength factor, and the calculated equivalent concentration of reference gas.

10.1.8.1.6 For each required level of detection (LOD) test of an HCl monitor performed in a controlled environment, record the test date, the concentrations of the reference gas and interference gases, the results of the seven (or more) consecutive measurements of HCl, the standard deviation, and the LOD value. For each required LOD test performed in the field, record the test date, the three measurements of the native source HCl concentration, the results of the three independent standard addition (SA) measurements known as standard addition response (SAR), the effective spike addition gas concentration (for IP-CEMS, the equivalent concentration of the reference gas), the resulting standard addition detection level (SADL) value and all related calculations. For extractive CEMS performing the SA using dynamic spiking, you must record the spiked gas dilution factor.

10.1.8.1.7 For each required ME/level of detection response time test of an HCl monitor, record the test date, the native HCl concentration of the flue gas, the reference gas value, the stable reference gas readings, the upscale/downscale start and end times, and the results of the upscale and downscale stages of the test.

10.1.8.1.8 For each required temperature or pressure measurement verification or audit of an IP-CEMS, keep records of the test date, the temperatures or pressures (as applicable) measured by the calibrated temperature or pressure reference device and the IP-CEMS, and the results of the test.

10.1.8.1.9 For each required interference test of an HCl monitor, record (or obtain from the analyzer manufacturer records of): the date of the test; the gas volume/rate, temperature, and pressure used to conduct the test; the HCl concentration of the reference gas used; the

concentrations of the interference test gases; the baseline HCl and HCl responses for each interferent combination spiked; and the total percent interference as a function of span or HCl concentration.

10.1.8.1.10 For each quarterly relative accuracy audit (RAA) of an HCl monitor, record the beginning and ending date and time of each test run, the reference method used, the HCl concentrations measured by the reference method and CEMS for each test run, the average concentrations measured by the reference method and the CEMS, and the calculated relative accuracy. Keep records of the raw field data, relevant process operating data, and the calculations used to determine the relative accuracy.

10.1.8.1.11 For each quarterly cylinder gas audit (CGA) of an HCl monitor, record the date and time of each injection, and the reference gas concentration (zero, mid, or high) and the monitor response for each injection. Also record the average monitor response and the calculated ME at each gas level. For IP-CEMS, you must also record the measured concentrations of the native HCl before and after introduction of each reference gas, the path lengths of the calibration cell and the stack optical path, the stack and calibration cell temperatures, the stack and calibration cell pressures, the instrument line strength factor, and the calculated equivalent concentration of reference gas.

10.1.8.1.12 For each quarterly dynamic spiking audit (DSA) of an HCl monitor, record the date and time of the zero gas injection and each spike injection, the results of the zero gas injection, the gas concentrations (mid and high) and the dilution factors and the monitor response for each of the six upscale injections as well as the corresponding native HCl concentrations measured before and after each injection. Also record the average dynamic spiking error for each

of the upscale gases, the calculated average DSA Accuracy at each upscale gas concentration, and all calculations leading to the DSA Accuracy.

* * * * *

11. REPORTING REQUIREMENTS

* * * * *

11.3.1 For an EGU that begins reporting hourly HCl and/or HF concentrations with a previously-certified CEMS, submit the monitoring plan information in section 10.1.1.2 of this appendix prior to or concurrent with the first required quarterly emissions report. For a new EGU, or for an EGU switching to continuous monitoring of HCl and/or HF emissions after having implemented another allowable compliance option under this subpart, submit the information in section 10.1.1.2 of this appendix at least 21 days prior to the start of initial certification testing of the CEMS. Also submit the monitoring plan information in section 75.53(g) pertaining to any required flow rate, diluent gas, and moisture monitoring systems within the applicable time frame specified in this section, if the required records are not already in place.

* * * * *

11.4 *Certification, Recertification, and Quality-Assurance Test Reporting Requirements.*

Except for daily QA tests (*i.e.*, calibrations and flow monitor interference checks), which are included in each electronic quarterly emissions report, use the ECMPS Client Tool to submit the results of all required certification, recertification, quality-assurance, and diagnostic tests of the monitoring systems required under this appendix electronically. Submit the test results either prior to or concurrent with the relevant quarterly electronic emissions report. However, for RATAs of the HCl monitor, if this is not possible, you have up to 60 days after the test

completion date to submit the test results; in this case, you may claim provisional status for the emissions data affected by the test, starting from the date and hour in which the test was completed and continuing until the date and hour in which the test results are submitted. If the test is successful, the status of the data in that time period changes from provisional to quality-assured, and no further action is required. However, if the test is unsuccessful, the provisional data must be invalidated and resubmission of the affected emission report(s) is required.

11.4.1 For each daily calibration drift (or calibration error) assessment (including daily calibration transfer standard tests), and for each 7-day calibration drift test of an HCl or HF monitor, report:

11.4.1.1 Facility ID information;

11.4.1.2 The monitoring component ID;

11.4.1.3 The instrument span and span scale;

11.4.1.4 For each gas injection, the date and time, the calibration gas level (zero, mid or other), the reference gas value (ppm), and the monitor response (ppm);

11.4.1.5 A flag to indicate whether dynamic spiking was used for the upscale value (extractive HCl monitors only);

11.4.1.6 Calibration drift or calibration error (percent of span or reference gas, as applicable);

11.4.1.7 When using the dynamic spiking option, the measured concentration of native HCl before and after each mid-level spike and the spiked gas dilution factor;

11.4.1.8 When using an IP-CEMS, also report the measured concentration of native HCl before and after each upscale measurement, the path lengths of the calibration cell and the stack

optical path, the stack and calibration cell temperatures, the stack and calibration cell pressures, the instrument line strength factor, and the equivalent concentration of the reference gas; and

11.4.1.9 Reason for test (for the 7-day CD test, only).

11.4.2 For each quarterly gas audit of an HCl or HF CEMS that is following PS 15, report:

* * * * *

11.4.3.11 Standard deviation, using either Equation 2-4 in section 12.3 of PS 2 in appendix B to part 60 of this chapter or Equation 10 in section 12.6.5 of PS 18;

11.4.3.12 Confidence coefficient, using either Equation 2-5 in section 12.4 of PS 2 in appendix B to part 60 of this chapter or Equation 11 in section 12.6.6 of PS 18;

11.4.3.13 t-value; and

11.4.3.14 *Relative Accuracy*. For FTIR monitoring systems following PS 15, calculate the relative accuracy using Equation 2-6 of PS 2 in appendix B to part 60 of this chapter or, if applicable, according to the alternative procedure for low emitters described in section 3.1.2.2 of this appendix. For HCl CEMS following PS 18, calculate the relative accuracy according to section 12.6 of PS 18. If applicable use a flag to indicate that the alternative relative accuracy specification for low emitters has been applied.

11.4.4 For each 3-level ME test of an HCl monitor, report:

11.4.4.1 Facility ID information;

11.4.4.2 Monitoring component ID;

11.4.4.3 Instrument span and span scale;

11.4.4.4 For each gas injection, the date and time, the calibration gas level (low, mid, or high), the reference gas value in ppm and the monitor response. When using an IP-CEMS, also

report the measured concentration of native HCl before and after each injection, the path lengths of the calibration cell and the stack optical path, the stack and calibration cell temperatures, the stack and calibration cell pressures, the instrument line strength factor, and the equivalent concentration of the reference gas;

11.4.4.5 For extractive CEMS, the mean reference value and mean of measured values at each reference gas level (ppm). For IP-CEMS, the mean of the measured concentration minus the average measured native concentration minus the equivalent reference gas concentration (ppm), at each reference gas level - see Equation 6A in PS 18;

11.4.4.6 ME at each reference gas level; and

11.4.4.7 Reason for test.

11.4.5 Beam intensity tests of an IP CEMS:

11.4.5.1 For the initial beam intensity test described in PS 18 in appendix B to part 60 of this chapter, report:

11.4.5.1.1 Facility ID information;

11.4.5.1.2 Date and time of the test;

11.4.5.1.3 Monitoring system ID;

11.4.5.1.4 Reason for test;

11.4.5.1.5 Attenuation value (%);

11.4.5.1.6 High level gas concentration (ppm);

11.4.5.1.7 Full and attenuated beam intensity levels, including units of measure;

11.4.5.1.8 Measured HCl concentrations at full and attenuated beam intensity (ppm); and

11.4.5.1.9 Percentage difference between the HCl concentrations.

11.4.5.2 For the daily beam intensity check described in Procedure 6 of appendix F to Part 60 of this chapter, report:

11.4.5.2.1 Facility ID information;

11.4.5.2.2 Date and time of the test;

11.4.5.2.3 Monitoring system ID;

11.4.5.2.4 The attenuated beam intensity level (limit) established in the initial test;

11.4.5.2.5 The beam intensity measured during the daily check; and

11.4.5.2.6 Results of the test (pass or fail).

11.4.6 For each temperature or pressure verification or audit of an HCl IP-CEMS, report:

11.4.6.1 Facility ID information;

11.4.6.2 Date and time of the test;

11.4.6.3 Monitoring system ID;

11.4.6.4 Type of verification (temperature or pressure);

11.4.6.5 Stack sensor measured value;

11.4.6.6 Reference device measured value;

11.4.6.7 Results of the test (pass or fail); and

11.4.6.8 Reason for test.

11.4.7 For each interference test of an HCl monitoring system, report:

11.4.7.1 Facility ID information;

11.4.7.2 Date of test;

11.4.7.3 Monitoring system ID;

11.4.7.4 Results of the test (pass or fail);

11.4.7.5 Reason for test; and

11.4.7.6 A flag to indicate whether the test was performed: on this particular monitoring system; on one of multiple systems of the same type; or by the manufacturer on a system with components of the same make and model(s) as this system.

11.4.8 For each LOD test of an HCl monitor, report:

11.4.8.1 Facility ID information;

11.4.8.2 Date of test;

11.4.8.3 Reason for test;

11.4.8.4 Monitoring system ID;

11.4.8.5 A code to indicate whether the test was done in a controlled environment or in the field;

11.4.8.6 HCl reference gas concentration;

11.4.8.7 HCl responses with interference gas (seven repetitions);

11.4.8.8 Standard deviation of HCl responses;

11.4.8.9 Effective spike addition gas concentrations;

11.4.8.10 HCl concentration measured without spike;

11.4.8.11 HCl concentration measured with spike;

11.4.8.12 Dilution factor for spike;

11.4.8.13 The controlled environment LOD value (ppm or ppm-meters);

11.4.8.14 The field determined standard addition detection level (SADL in ppm or ppm-meters); and

11.4.8.15 Result of LDO/SADL test (pass/fail).

11.4.9 For each ME or LOD response time test of an HCl monitor, report:

11.4.9.1 Facility ID information;

11.4.9.2 Date of test;

11.4.9.3 Monitoring component ID;

11.4.9.4 The higher of the upscale or downscale tests, in minutes; and

11.4.9.5 Reason for test.

11.4.10 For each quarterly RAA of an HCl monitor, report:

11.4.10.1 Facility ID information;

11.4.10.2 Monitoring system ID;

11.4.10.3 Begin and end time of each test run;

11.4.10.4 The reference method used;

11.4.10.5 The reference method and CEMS values for each test run, including the units of measure;

11.4.10.6 The mean reference method and CEMS values for the three test runs;

11.4.10.7 The calculated relative accuracy, percent; and

11.4.10.8 Reason for test.

11.4.11 For each quarterly cylinder gas audit of an HCl monitor, report:

11.4.11.1 Facility ID information;

11.4.11.2 Monitoring component ID;

11.4.11.3 Instrument span and span scale;

11.4.11.4 For each gas injection, the date and time, the reference gas level (zero, mid, or high), the reference gas value in ppm, and the monitor response. When using an IP-CEMS, also report the measured concentration of native HCl before and after each injection, the path lengths of the calibration cell and the stack optical path, the stack and calibration cell temperatures, the

stack and calibration cell pressures, the instrument line strength factor, and the equivalent concentration of the reference gas;

11.4.11.5 For extractive CEMS, the mean reference gas value and mean monitor response at each reference gas level (ppm). For IP-CEMS, the mean of the measured concentration minus the average measured native concentration minus the equivalent reference gas concentration (ppm), at each reference gas level -see Equation 6A in PS 18;

11.4.11.6 ME at each reference gas level; and

11.4.11.7 Reason for test.

11.4.12 For each quarterly DSA of an HCl monitor, report:

11.4.12.1 Facility ID information;

11.4.12.2 Monitoring component ID;

11.4.12.3 Instrument span and span scale;

11.4.12.4 For the zero gas injection, the date and time, and the monitor response (*Note:* The zero gas injection from a calibration drift check performed on the same day as the upscale spikes may be used for this purpose.);

11.4.12.5 Zero spike error;

11.4.12.6 For the upscale gas spiking, the date and time of each spike, the reference gas level (mid- or high-), the reference gas value (ppm), the dilution factor, the native HCl concentrations before and after each spike, and the monitor response for each gas spike;

11.4.12.7 Upscale spike error;

11.4.12.8 DSA at the zero level and at each upscale gas level; and

11.4.12.9 Reason for test.

11.4.13 *Reporting Requirements for Diluent Gas, Flow Rate, and Moisture Monitoring Systems.* For the certification, recertification, diagnostic, and QA tests of stack gas flow rate, moisture, and diluent gas monitoring systems that are certified and quality-assured according to part 75 of this chapter, report the information in section 10.1.8.2 of this appendix.

* * * * *

11.5.1 The owner or operator of any affected unit shall use the ECMPS Client Tool to submit electronic quarterly reports to the Administrator in an XML format specified by the Administrator, for each affected unit (or group of units monitored at a common stack). If the certified HCl or HF CEMS is used for the initial compliance demonstration, HCl or HF emissions reporting shall begin with the first operating hour of the 30-boiler operating day compliance demonstration period. Otherwise, HCl or HF emissions reporting shall begin with the first operating hour after successfully completing all required certification tests of the CEMS.

* * * * *

18. Subpart UUUUU of part 63 is amended by adding appendix C to read as follows:

APPENDIX C TO SUBPART UUUUU OF PART 63—PM MONITORING PROVISIONS

1. GENERAL PROVISIONS

1.1 *Applicability.* These monitoring provisions apply to the continuous measurement of filterable PM emissions from affected EGUs under this subpart. A PM CEMS is used together with other CMS and (as applicable) parametric measurement devices to quantify PM emissions in units of the applicable standard (*i.e.*, lb/MMBtu or lb/MWh).

1.2 *Initial Certification and Recertification Procedures.*

You, as the owner or operator of an affected EGU that uses a PM CEMS to demonstrate compliance with a filterable PM emissions limit in Table 1 or 2 to this subpart must certify and, if applicable, recertify the CEMS according to PS-11 in appendix B to part 60 of this chapter.

1.3 *Quality Assurance and Quality Control Requirements.* You must meet the applicable quality assurance requirements of Procedure 2 in appendix F to part 60 of this chapter.

1.4 *Missing Data Procedures.* You must not substitute data for missing data from the PM CEMS. Any process operating hour for which quality-assured PM concentration data are not obtained is counted as an hour of monitoring system downtime.

1.5 *Adjustments for Flow System Bias.* When the PM emission rate is reported on a gross output basis, you must not adjust the data recorded by a stack gas flow rate monitor for bias, which may otherwise be required under section 75.24 of this chapter.

2. MONITORING OF PM EMISSIONS

2.1 *Monitoring System Installation Requirements.* Flue gases from the affected EGUs under this subpart vent to the atmosphere through a variety of exhaust configurations including single stacks, common stack configurations, and multiple stack configurations. For each of these configurations, 40 CFR 63.10010(a) specifies the appropriate location(s) at which to install CMS. These CMS installation provisions apply to the PM CEMS and to the other CMS and parametric monitoring devices that provide data for the PM emissions calculations in section 6 of this appendix.

2.2 *Primary and Backup Monitoring Systems.* In the electronic monitoring plan described in section 7 of this appendix, you must create and designate a primary monitoring system for PM and for each additional parameter (*i.e.*, stack gas flow rate, CO₂ or O₂ concentration, stack gas moisture content, as applicable). The primary system must be used to report hourly PM

concentration values when the system is able to provide quality-assured data, *i.e.*, when the system is “in control.” However, to increase data availability in the event of a primary monitoring system outage, you may install, operate, maintain, and calibrate a redundant backup monitoring system. A redundant backup system is one that is permanently installed at the unit or stack location and is kept on “hot standby” in case the primary monitoring system is unable to provide quality-assured data. You must represent each redundant backup system as a unique monitoring system in the electronic monitoring plan. You must certify each redundant backup monitoring system according to the applicable provisions in section 4 of this appendix. In addition, each redundant monitoring system must meet the applicable on-going QA requirements in section 5 of this appendix.

3. PM EMISSIONS MEASUREMENT METHODS

The following definitions, equipment specifications, procedures, and performance criteria are applicable

3.1 *Definitions.* All definitions specified in section 3 of PS-11 in appendix B to part 60 of this chapter and section 3 of Procedure 2 in appendix F to part 60 of this chapter are applicable to the measurement of filterable PM emissions from electric utility steam generating units under this subpart. In addition, the following definitions apply:

3.1.1 *Stack operating hour* means a clock hour during which flue gases flow through a particular stack or duct (either for the entire hour or for part of the hour) while the associated unit(s) are combusting fuel.

3.1.2 *Unit operating hour* means a clock hour during which a unit combusts any fuel, either for part of the hour or for the entire hour.

3.2 *Continuous Monitoring Methods.*

3.2.1 Installation and Measurement Location. You must install the PM CEMS according to 40 CFR 63.10010 and Section 2.4 of PS-11.

3.2.2 Units of Measure. For the purposes of this subpart, you shall report hourly PM concentrations in units of measure that correspond to your PM CEMS correlation curve (*e.g.*, mg/acm, mg/acm @ 160 °C, mg/wscm, mg/dscm).

3.2.3 Other Necessary Data Collection. To convert hourly PM concentrations to the units of the applicable emissions standard (*i.e.*, lb/MMBtu or lb/MWh), you must collect additional data as described in sections 3.2.3.1 and 3.2.3.2 of this appendix. You must install, certify, operate, maintain, and quality-assure any stack gas flow rate, CO₂, O₂, or moisture monitoring systems needed for this purpose according to sections 4 and 5 of this appendix. The calculation methods for the emission limits described in sections 3.2.3.1 and 3.2.3.2 of this appendix are presented in section 6 of this appendix.

3.2.3.1 Heat Input-Based Emission Limits. To demonstrate compliance with a heat input-based PM emission limit in Table 2 to this subpart, you must provide the hourly stack gas CO₂ or O₂ concentration, along with a fuel-specific F_c factor or dry-basis F-factor and (if applicable) the stack gas moisture content, in order to convert measured PM concentrations values to the units of the standard.

3.2.3.2 Gross Output-Based Emission Limits. To demonstrate compliance with a gross output-based PM emission limit in Table 1 or Table 2 to this subpart, you must provide the hourly gross output in megawatts, along with data from a certified stack gas flow rate monitor and (if applicable) the stack gas moisture content, in order to convert measured PM concentrations values to units of the standard.

4. CERTIFICATION AND RECERTIFICATION REQUIREMENTS

4.1 *Certification Requirements.* You must certify your PM CEMS and the other CMS used to determine compliance with the applicable emissions standard before the PM CEMS can be used to provide data under this subpart. Redundant backup monitoring systems (if used) are subject to the same certification requirements as the primary systems.

4.1.1 PM CEMS. You must certify your PM CEMS according to PS-11 in appendix B to part 60 of this chapter. A PM CEMS that has been installed and certified according to PS-11 as a result of another state or federal regulatory requirement or consent decree prior to the effective date of this subpart shall be considered certified for this subpart if you can demonstrate that your PM CEMS meets the PS-11 acceptance criteria based on the applicable emission standard in this subpart.

4.1.2 Flow Rate, Diluent Gas, and Moisture Monitoring Systems. You must certify the continuous monitoring systems that are needed to convert PM concentrations to units of the standard or (if applicable) to convert the measured PM concentrations from wet basis to dry basis or vice-versa (*i.e.*, stack gas flow rate, diluent gas (CO₂ or O₂) concentration, or moisture monitoring systems), in accordance with the applicable provisions in section 75.20 of this chapter and appendix A to part 75 of this chapter.

4.1.3 Other Parametric Measurement Devices. Any temperature or pressure measurement devices that are used to convert hourly PM concentrations to standard conditions must be installed, calibrated, maintained, and operated according to the manufacturers' instructions.

4.2 *Recertification.*

4.2.1 You must recertify your PM CEMS if it is either: moved to a different stack or duct; moved to a new location within the same stack or duct; modified or repaired in such a way that the existing correlation is altered or impacted; or replaced.

4.2.2 The flow rate, diluent gas, and moisture monitoring systems that are used to convert PM concentration to units of the emission standard are subject to the recertification provisions in section 75.20(b) of this chapter.

4.3 *Development of a New or Revised Correlation Curve.* You must develop a new or revised correlation curve if:

4.3.1 An RCA is failed and the new or revised correlation is developed according to section 10.6 in Procedure 2 of appendix F to part 60 of this chapter; or

4.3.2 The events described in paragraph (1) or (2) in section 8.8 of PS-11 occur.

5. ONGOING QUALITY ASSURANCE (QA) AND DATA VALIDATION

5.1 *PM CEMS.*

5.1.1 Required QA Tests. Following initial certification, you must conduct periodic QA testing of each primary and (if applicable) redundant backup PM CEMS. The required QA tests and the PS that must be met are found in Procedure 2 of appendix F to part 60 of this chapter (Procedure 2). Except as otherwise provided in section 5.1.2 of this appendix, the QA tests shall be done at the frequency specified in Procedure 2.

5.1.2 RRA and RCA Test Frequencies.

5.1.2.1 The test frequency for RRAs of the PM CEMS shall be annual, *i.e.*, once every 4 calendar quarters. The RRA must either be performed within the fourth calendar quarter after the calendar quarter in which the previous RRA was completed or in a grace period (see section 5.1.3, below). When a required annual RRA is done within a grace period, the deadline for the next RRA is 4 calendar quarters after the quarter in which the RRA was originally due, rather than the calendar quarter in which the grace period test is completed.

5.1.2.2 The test frequency for RCAs of the PM CEMS shall be triennial, *i.e.*, once every 12 calendar quarters. If a required RCA is not completed within 12 calendar quarters after the calendar quarter in which the previous RCA was completed, it must be performed in a grace period immediately following the twelfth calendar quarter (see section 5.1.3, below). When an RCA is done in a grace period, the deadline for the next RCA shall be 12 calendar quarters after the calendar quarter in which the RCA was originally due, rather than the calendar quarter in which the grace period test is completed.

5.1.2.3 Successive quarterly audits (*i.e.*, ACAs and, if applicable, sample volume audits (SVAs)) shall be conducted at least 60 days apart.

5.1.3 Grace Period. A grace period is available, immediately following the end of the calendar quarter in which an RRA or RCA of the PM CEMS is due. The length of the grace period shall be the lesser of 720 EGU (or stack) operating hours or 1 calendar quarter.

5.1.4 RCA and RRA Acceptability. The results of your RRA or RCA are considered acceptable provided that the criteria in section 10.4(5) of Procedure 2 in appendix F to part 60 of this chapter are met for an RCA or section 10.4(6) of Procedure 2 in appendix F to part 60 of this chapter are met for an RRA.

5.1.5 Data Validation. Your PM CEMS is considered to be out-of-control, and you may not report data from it as quality-assured, when, for a required certification, recertification, or QA test, the applicable acceptance criterion (either in PS-11 in appendix B to part 60 of this chapter or Procedure 2 in appendix F to part 60 of this chapter) is not met. Further, data from your PM CEMS are considered out-of-control, and may not be used for reporting, when a required QA test is not performed on schedule or within an allotted grace period. When an out-of-control period occurs, you must perform the appropriate follow-up actions. For an out-of-

control period triggered by a failed QA test, you must perform and pass the same type of test in order to end the out-of-control period. For a QA test that is not performed on time, data from the PM CEMS remain out-of-control until the required test has been performed and passed. You must count all out-of-control data periods of the PM CEMS as hours of monitoring system downtime.

5.2 Stack Gas Flow Rate, Diluent Gas, and Moisture Monitoring Systems. The on-going QA test requirements and data validation criteria for the primary and (if applicable) redundant backup stack gas flow rate, diluent gas, and moisture monitoring systems are specified in appendix B to part 75 of this chapter.

5.3 QA/QC Program Requirements. You must develop and implement a QA/QC program for the PM CEMS and the other equipment that is used to provide data under this subpart. You may store your QA/QC plan electronically, provided that the information can be made available expeditiously in hard copy to auditors and inspectors.

5.3.1 General Requirements.

5.3.1.1 Preventive Maintenance. You must keep a written record of the procedures needed to maintain the PM CEMS and other equipment that is used to provide data under this subpart in proper operating condition, along with a schedule for those procedures. At a minimum, you must include all procedures specified by the manufacturers of the equipment and, if applicable, additional or alternate procedures developed for the equipment.

5.3.1.2 Recordkeeping Requirements. You must keep a written record describing procedures that will be used to implement the recordkeeping and reporting requirements of this appendix.

5.3.1.3 Maintenance Records. You must keep a record of all testing, maintenance, or repair activities performed on the PM CEMS, and other equipment used to provide data under this subpart in a location and format suitable for inspection. You may use a maintenance log for this purpose. You must maintain the following records for each system or device: the date, time, and description of any testing, adjustment, repair, replacement, or preventive maintenance action performed, and records of any corrective actions taken. Additionally, you must record any adjustment that may affect the ability of a monitoring system or measurement device to make accurate measurements, and you must keep a written explanation of the procedures used to make the adjustment(s).

5.3.2 Specific Requirements for the PM CEMS.

5.3.2.1 Daily, and Quarterly Quality Assurance Assessments. You must keep a written record of the procedures used for daily assessments of the PM CEMS. You must also keep records of the procedures used to perform quarterly ACA and (if applicable) SVA audits. You must document how the test results are calculated and evaluated.

5.3.2.2 Monitoring System Adjustments. You must document how each component of the PM CEMS will be adjusted to provide correct responses after routine maintenance, repairs, or corrective actions.

5.3.2.3 Correlation Tests, Annual and Triennial Audits. You must keep a written record of procedures used for the correlation test(s), annual RRAs, and triennial RCAs of the PM CEMS. You must document how the test results are calculated and evaluated.

5.3.3 Specific Requirements for Diluent Gas, Stack Gas Flow Rate, and Moisture Monitoring Systems. The QA/QC program requirements for the stack gas flow rate, diluent gas,

and moisture monitoring systems described in section 3.2.3 of this appendix are specified in section 1 of appendix B to part 75 of this chapter.

5.3.4 Requirements for Other Monitoring Equipment. For the equipment required to convert readings from the PM CEMS to standard conditions (*e.g.*, devices to measure temperature and pressure), you must keep a written record of the calibrations and/or other procedures used to ensure that the devices provide accurate data.

5.3.5 You may store your QA/QC plan electronically, provided that you can make the information available expeditiously in hard copy to auditors or inspectors.

6. DATA REDUCTION AND CALCULATIONS

6.1 *Data Reduction and Validation.*

6.1.1 You must reduce the data from PM CEMS to hourly averages, in accordance with 40 CFR 60.13(h)(2) of this chapter.

6.1.2 You must reduce all CEMS data from stack gas flow rate, CO₂, O₂, and moisture monitoring systems to hourly averages according to 40 CFR 75.10(d)(1) of this chapter.

6.1.3 You must reduce all other data from devices used to convert readings from the PM CEMS to standard conditions to hourly averages according to 40 CFR 60.13(h)(2) or 40 CFR 75.10(d)(1) of this chapter. This includes, but is not limited to, data from devices used to measure temperature and pressure, or, for cogeneration units that calculate gross output based on steam characteristics, devices to measure steam flow rate, steam pressure, and steam temperature.

6.1.4 Do not calculate the PM emission rate for any unit or stack operating hour in which valid data are not obtained for PM concentration or for any parameter used in the PM emission

rate calculations (*i.e.*, gross output, stack gas flow rate, stack temperature, stack pressure, stack gas moisture content, or diluent gas concentration, as applicable).

6.1.5 For the purposes of this appendix, part 75 substitute data values for stack gas flow rate, CO₂ concentration, O₂ concentration, and moisture content are not considered to be valid data.

6.1.6 Operating hours in which PM concentration is missing or invalid are hours of monitoring system downtime. The use of substitute data for PM concentration is not allowed.

6.1.7 You must exclude all data obtained during a boiler startup or shutdown operating hour (as defined in 40 CFR 63.10042) from the determination of the 30-boiler operating day rolling average PM emission rates.

6.2 *Calculation of PM Emission Rates.* Unless your PM CEMS is correlated to provide PM concentrations at standard conditions, you must use the calculation methods in sections 6.2.1 through 6.2.3 of this appendix to convert measured PM concentration values to units of the emission limit (lb/MMBtu or lb/MWh, as applicable).

6.2.1 PM concentrations must be at standard conditions in order to convert them to units of the emissions limit. If your PM CEMS measures PM concentrations at standard conditions, proceed to section 6.2.2 or 6.2.3, below (as applicable). However, if your PM CEMS measures PM concentrations in units of mg/acm or mg/acm at a specified temperature (*e.g.*, 160 °C), you must first use one of the following equations to convert the hourly PM concentration values from actual to standard conditions:

$$C_{std} = C_a \left(\frac{460 + T_s}{P_s} \right) \left(\frac{P_{std}}{460 + T_{std}} \right) \quad (\text{Eq. C-1})$$

or

$$C_{std} = C_a \left(\frac{460 + T_{CEMS}}{P_{CEMS}} \right) \left(\frac{P_{std}}{460 + T_{std}} \right) \quad (\text{Eq. C-2})$$

Where:

C_{std} = PM concentration at standard conditions

C_a = PM concentration at measurement conditions

T_s = Stack Temperature (°F)

T_{CEMS} = CEMS Measurement Temperature (°F)

P_{CEMS} = CEMS Measurement Pressure (in. Hg)

P_s = Stack Pressure (in. Hg)

T_{std} = Standard Temperature (68 °F)

P_{std} = Standard Pressure (29.92 in. Hg).

6.2.2 Heat Input-Based PM Emission Rates (Existing EGUs, Only). Calculate the hourly heat input-based PM emission rates (if applicable), in units of lb/MMBtu, according to sections 6.2.2.1 and 6.2.2.2 of this appendix.

6.2.2.1 You must select an appropriate emission rate equation from among Equations 19-1 through 19-9 in appendix A-7 to part 60 of this chapter to convert the hourly PM concentration values from section 6.2.1 of this appendix to units of lb/MMBtu. Note that the EPA test Method 19 equations require the pollutant concentration to be expressed in units of lb/scf; therefore, you must first multiply the PM concentration by 6.24×10^{-8} to convert it from mg/scm to lb/scf.

6.2.2.2 You must use the appropriate carbon-based or dry-basis F-factor in the emission rate equation that you have selected. You may either use an F-factor from Table 19-2 of EPA test Method 19 in appendix A-7 to part 60 of this chapter or from section 3.3.5 or section 3.3.6 of appendix F to part 75 of this chapter.

6.2.2.3 If the hourly average O₂ concentration is above 14.0% O₂ (19.0% for an IGCC) or the hourly average CO₂ concentration is below 5.0% CO₂ (1.0% for an IGCC), you may calculate the PM emission rate using the applicable diluent cap value (as defined in 40 CFR 63.10042 and specified in 40 CFR 63.10007(f)(1)), provided that the diluent gas monitor is operating and recording quality-assured data).

6.2.2.4 If your selected EPA test Method 19 equation requires a correction for the stack gas moisture content, you may either use quality-assured hourly data from a certified part 75 moisture monitoring system, a fuel-specific default moisture value from 40 CFR 75.11(b) of this chapter, or a site-specific default moisture value approved by the Administrator under section 75.66 of this chapter.

6.2.3 Gross Output-Based PM Emission Rates. For each unit or stack operating hour, if C_{std} is measured on a wet basis, you must use Equation C-3 to calculate the gross output-based PM emission rate (if applicable). Use Equation C-4 if C_{std} is measured on a dry basis:

$$E_{heo} = 6.24 \times 10^{-8} \left(\frac{C_{std} Q_s}{MW} \right) \quad (\text{Eq. C-3})$$

Where:

E_{heo} = Hourly gross output-based PM emission rate (lb/MWh)

C_{std} = PM concentration from section 6.2.1 (mg/scm), wet basis

Q_s = Unadjusted stack gas volumetric flow rate (scfh, wet basis)

MW = Gross output (megawatts)

6.24 x 10⁻⁸ = Conversion factor

or

$$E_{heo} = 6.24 \times 10^{-8} \left(\frac{C_{std} Q_s}{MW} \right) (1 - B_{ws}) \quad (\text{Eq. C-4})$$

Where:

E_{heo} = Hourly gross output-based PM emission rate (lb/MWh)

C_{std} = PM concentration from section 6.2.1 (mg/scm), dry basis

Q_s = Unadjusted stack gas volumetric flow rate (scfh, wet basis)

MW = Gross output (megawatts)

B_{ws} = Proportion by volume of water vapor in the stack gas

6.24×10^{-8} = Conversion factor.

6.2.4 You must calculate the 30-boiler operating day rolling average PM emission rates according to 40 CFR 63.10021(b).

7. RECORDKEEPING AND REPORTING

7.1 *Recordkeeping Provisions.* For the PM CEMS and the other necessary CMS and parameter measurement devices installed at each affected unit or common stack, you must maintain a file of all measurements, data, reports, and other information required by this appendix in a form suitable for inspection, for 5 years from the date of each record, in accordance with 40 CFR 63.10033. The file shall contain the applicable information in sections 7.1.1 through 7.1.11 of this appendix.

7.1.1 *Monitoring Plan Records.* For each EGU or group of EGUs monitored at a common stack, you must prepare and maintain a monitoring plan for the PM CEMS and the other CMS(s) needed to convert PM concentrations to units of the applicable emission standard.

7.1.1.1 *Updates.* If you make a replacement, modification, or change in a certified CEMS that is used to provide data under this appendix (including a change in the automated data acquisition and handling system (DAHS)) or if you make a change to the flue gas handling system and that replacement, modification, or change affects information reported in the

monitoring plan (*e.g.*, a change to a serial number for a component of a monitoring system), you shall update the monitoring plan.

7.1.1.2 Contents of the Monitoring Plan. For the PM CEMS, your monitoring plan shall contain the applicable information in sections 7.1.1.2.1 and 7.1.1.2.2 of this appendix. For required stack gas flow rate, diluent gas, and moisture monitoring systems, your monitoring plan shall include the applicable information required for those systems under 40 CFR 75.53 (g) and (h) of this chapter.

7.1.1.2.1 Electronic. Your electronic monitoring plan records must include the following information: unit or stack ID number(s); unit information (type of unit, maximum rated heat input, fuel type(s), emission controls); monitoring location(s); the monitoring methodologies used; monitoring system information, including (as applicable): unique system and component ID numbers; the make, model, and serial number of the monitoring equipment; the sample acquisition method; formulas used to calculate emissions; operating range and load information; monitor span and range information; units of measure of your PM concentrations (see section 3.2.2); and appropriate default values. Your electronic monitoring plan shall be evaluated and submitted using the ECMPS Client Tool provided by the Clean Air Markets Division (CAMD) in EPA's Office of Atmospheric Programs.

7.1.1.2.2 Hard Copy. You must keep records of the following items: schematics and/or blueprints showing the location of the PM monitoring system(s) and test ports; data flow diagrams; test protocols; and miscellaneous technical justifications. The hard copy portion of the monitoring plan must also explain how the PM concentrations are measured and how they are converted to the units of the applicable emissions limit. The equation(s) used for the conversions

must be documented. Electronic storage of the hard copy portion of the monitoring plan is permitted.

7.1.2 Operating Parameter Records. You must record the following information for each operating hour of each EGU and also for each group of EGUs utilizing a monitored common stack, to the extent that these data are needed to convert PM concentration data to the units of the emission standard. For non-operating hours, you must record only the items in sections 7.1.2.1 and 7.1.2.2 of this appendix. If you elect to or are required to comply with a gross output-based PM standard, for any hour in which there is gross output greater than zero, you must record the items in sections 7.1.2.1 through 7.1.2.3 and (if applicable) 7.1.2.5 of this appendix; however, if there is heat input to the unit(s) but no gross output (*e.g.*, at unit startup), you must record the items in sections 7.1.2.1, 7.1.2.2, and, if applicable, section 7.1.2.5 of this appendix. If you elect to comply with a heat input-based PM standard, you must record only the items in sections 7.1.2.1, 7.1.2.2, 7.1.2.4, and, if applicable, section 7.1.2.5 of this appendix.

7.1.2.1 The date and hour;

7.1.2.2 The unit or stack operating time (rounded up to the nearest fraction of an hour (in equal increments that can range from 1 hundredth to 1 quarter of an hour, at your option));

7.1.2.3 The hourly gross output (rounded to nearest MWe);

7.1.2.4 If applicable, the F_c factor or dry-basis F-factor used to calculate the heat input-based PM emission rate; and

7.1.2.5 If applicable, a flag to indicate that the hour is an exempt startup or shutdown hour.

7.1.3 PM Concentration Records. For each affected unit or common stack using a PM CEMS, you must record the following information for each unit or stack operating hour:

7.1.3.1 The date and hour;

7.1.3.2 Monitoring system and component identification codes for the PM CEMS, as provided in the electronic monitoring plan, if your CEMS provides a quality-assured value of PM concentration for the hour;

7.1.3.3 The hourly PM concentration, in units of measure that correspond to your PM CEMS correlation curve, for each operating hour in which a quality-assured value is obtained. Record all PM concentrations with one leading non-zero digit and one decimal place, expressed in scientific notation. Use the following rounding convention: if the digit immediately following the first decimal place is 5 or greater, round the first decimal place upward (increase it by one); if the digit immediately following the first decimal place is 4 or less, leave the first decimal place unchanged.

7.1.3.4 A special code, indicating whether or not a quality-assured PM concentration is obtained for the hour; and

7.1.3.5 Monitor data availability for PM concentration, as a percentage of unit or stack operating hours calculated in the manner established for SO₂, CO₂, O₂ or moisture monitoring systems according to 40 CFR 75.32 of this chapter.

7.1.4 Stack Gas Volumetric Flow Rate Records.

7.1.4.1 When a gross output-based PM emissions limit must be met, in units of lb/MWh, you must obtain hourly measurements of stack gas volumetric flow rate during EGU operation, in order to convert PM concentrations to units of the standard.

7.1.4.2 When hourly measurements of stack gas flow rate are needed, you must keep hourly records of the flow rates and related information, as specified in 40 CFR 75.57(c)(2) of this chapter.

7.1.5 Records of Diluent Gas (CO₂ or O₂) Concentration.

7.1.5.1 When a heat input-based PM emission limit must be met, in units of lb/MMBtu, you must obtain hourly measurements of CO₂ or O₂ concentration during EGU operation, in order to convert PM concentrations to units of the standard.

7.1.5.2 When hourly measurements of diluent gas concentration are needed, you must keep hourly CO₂ or O₂ concentration records, as specified in 40 CFR 75.57(g) of this chapter.

7.1.6 Records of Stack Gas Moisture Content.

7.1.6.1 When corrections for stack gas moisture content are needed to demonstrate compliance with the applicable PM emissions limit:

7.1.6.1.1 If you use a continuous moisture monitoring system, you must keep hourly records of the stack gas moisture content and related information, as specified in 40 CFR 75.57(c)(3) of this chapter.

7.1.6.1.2 If you use a fuel-specific default moisture value, you must represent it in the electronic monitoring plan required under section 7.1.1.2.1 of this appendix.

7.1.7 PM Emission Rate Records. For applicable PM emission limits in units of lb/MMBtu or lb/MWh, you must record the following information for each affected EGU or common stack:

7.1.7.1 The date and hour;

7.1.7.2 The hourly PM emissions rate (lb/MMBtu or lb/MWh, as applicable), calculated according to section 6.2.2 or 6.2.3 of this appendix, rounded to the same precision as the standard (*i.e.*, with one leading non-zero digit and one decimal place, expressed in scientific notation), expressed in scientific notation. Use the following rounding convention: if the digit immediately following the first decimal place is 5 or greater, round the first decimal place

upward (increase it by one); if the digit immediately following the first decimal place is 4 or less, leave the first decimal place unchanged. You must calculate the PM emission rate only when valid values of PM concentration and all other required parameters required to convert PM concentration to the units of the standard are obtained for the hour;

7.1.7.3 An identification code for the formula used to derive the hourly PM emission rate from measurements of the PM concentration and other necessary parameters (*i.e.*, Equation C-3 or C-4 in section 6.2.3 of this appendix or the applicable EPA test Method 19 equation);

7.1.7.4 If applicable, indicate that the diluent cap has been used to calculate the PM emission rate; and

7.1.7.5 If applicable, indicate that the default electrical load (as defined in 40 CFR 63.10042) has been used to calculate the hourly PM emission rate.

7.1.7.6 Indicate that the PM emission rate was not calculated for the hour, if valid data are not obtained for PM concentration and/or any of the other parameters in the PM emission rate equation. For the purposes of this appendix, substitute data values for stack gas flow rate, CO₂ concentration, O₂ concentration, and moisture content reported under part 75 of this chapter are not considered to be valid data. However, when the gross output (as defined in 40 CFR 63.10042) is reported for an operating hour with zero output, the default electrical load value is treated as quality-assured data.

7.1.8 Other Parametric Data. If your PM CEMS measures PM concentrations at actual conditions, you must keep records of the temperatures and pressures used in Equation C-1 or C-2 to convert the measured hourly PM concentrations to standard conditions.

7.1.9 Certification, Recertification, and Quality Assurance Test Records. For any PM CEMS used to provide data under this subpart, you must record the following certification, recertification, and quality assurance information:

7.1.9.1 The test dates and times, reference values, monitor responses, monitor full scale value, and calculated results for the required 7-day drift tests and for the required daily zero and upscale calibration drift tests;

7.1.9.2 The test dates and times and results (pass or fail) of all daily system optics checks and daily sample volume checks of the PM CEMS (as applicable);

7.1.9.3 The test dates and times, reference values, monitor responses, and calculated results for all required quarterly ACAs;

7.1.9.4 The test dates and times, reference values, monitor responses, and calculated results for all required quarterly SVAs of extractive PM CEMS;

7.1.9.5 The test dates and times, reference method readings and corresponding PM CEMS responses (including the units of measure), and the calculated results for all PM CEMS correlation tests, RRAs and RCAs. For the correlation tests, you must indicate which model is used (*i.e.*, linear, logarithmic, exponential, polynomial, or power) and record the correlation equation. For the RRAs and RCAs, the reference method readings and PM CEMS responses must be reported in the same units of measure as the PM CEMS correlation;

7.1.9.6 The cycle time and sample delay time for PM CEMS that operate in batch sampling mode; and

7.1.9.7 Supporting information for all required PM CEMS correlation tests, RRAs, and RCAs, including records of all raw reference method and monitoring system data, the results of

sample analyses to substantiate the reported test results, as well as records of sampling equipment calibrations, reference monitor calibrations, and analytical equipment calibrations.

7.1.10 For stack gas flow rate, diluent gas, and moisture monitoring systems, you must keep records of all certification, recertification, diagnostic, and on-going quality-assurance tests of these systems, as specified in 40 CFR 75.59(a) of this chapter.

7.1.11 For each temperature measurement device (*e.g.*, resistance temperature detector or thermocouple) and pressure measurement device used to convert measured PM concentrations to standard conditions according to Equation C-1 or C-2, you must keep records of all calibrations and other checks performed to ensure that accurate data are obtained.

7.2 Reporting Requirements.

7.2.1 General Reporting Provisions. You must comply with the following requirements for reporting PM emissions from each affected EGU (or group of EGUs monitored at a common stack) under this subpart:

7.2.1.1 Notifications, in accordance with section 7.2.2 of this appendix;

7.2.1.2 Monitoring plan reporting, in accordance with section 7.2.3 of this appendix;

7.2.1.3 Certification, recertification, and quality assurance test submittals, in accordance with section 7.2.4 of this appendix; and

7.2.1.4 Electronic quarterly emissions report submittals, in accordance with section 7.2.5 of this appendix.

7.2.2 Notifications. You must provide notifications for each affected unit (or group of units monitored at a common stack) under this subpart in accordance with 40 CFR 63.10030.

7.2.3 Monitoring Plan Reporting. For each affected unit (or group of units monitored at a common stack) under this subpart using PM CEMS to measure PM emissions, you must make electronic and hard copy monitoring plan submittals as follows:

7.2.3.1 For an EGU that begins reporting hourly PM concentrations on January 1, 2024, with a previously certified PM CEMS, submit the monitoring plan information in section 7.1.1.2 of this appendix prior to or concurrent with the first required quarterly emissions report. For a new EGU, or for an EGU switching to continuous monitoring of PM emissions after having implemented another allowable compliance option under this subpart, submit the information in section 7.1.1.2 of this appendix at least 21 days prior to the start of initial certification testing of the PM CEMS. Also submit the monitoring plan information in 40 CFR 75.53(g) pertaining to any required flow rate, diluent gas, and moisture monitoring systems within the applicable time frame specified in this section, if the required records are not already in place.

7.2.3.2 Whenever an update of the monitoring plan is required, as provided in section 7.1.1.1 of this appendix, you must submit the updated information either prior to or concurrent with the relevant quarterly electronic emissions report.

7.2.3.3 All electronic monitoring plan submittals and updates shall be made to the Administrator using the ECMPS Client Tool. Hard copy portions of the monitoring plan shall be submitted to the appropriate delegated authority.

7.2.4 Certification, Recertification, and Quality-Assurance Test Reporting. Except for daily quality assurance tests of the required monitoring systems (*i.e.*, calibration error or drift tests, sample volume checks, system optics checks, and flow monitor interference checks), you must submit the results of all required certification, recertification, and quality-assurance tests described in sections 7.1.9.1 through 7.1.9.6 and 7.1.10 of this appendix electronically (except

for test results previously submitted, *e.g.*, under the Acid Rain Program), using the ECMPS Client Tool. Submit the results of the quality assurance test (*i.e.*, RCA or RRA) or, if applicable, a new PM CEMS correlation test, either prior to or concurrent with the relevant quarterly electronic emissions report. If this is not possible, you have up to 60 days after the test completion date to submit the test results; in this case, you may claim provisional status for the emissions data affected by the quality assurance test or correlation, starting from the date and hour in which the test was completed and continuing until the date and hour in which the test results are submitted. For an RRA or RCA, if the applicable audit specifications are met, the status of the emissions data in the relevant time period changes from provisional to quality-assured, and no further action is required. For a successful correlation test, apply the correlation equation retrospectively to the raw data to change the provisional status of the data to quality-assured, and resubmit the affected emissions report(s). However, if the applicable performance specifications are not met, the provisional data must be invalidated, and resubmission of the affected quarterly emission report(s) is required. For a failed RRA or RCA, you must take corrective actions and proceed according to the applicable requirements found in sections 10.5 through 10.7 of Procedure 2 until a successful quality assurance test report is submitted. If a correlation test is unsuccessful, you may not report quality-assured data from the PM CEMS until the results of a subsequent correlation test show that the specifications in section 13.0 of PS 11 are met.

7.2.5 Quarterly Reports.

7.2.5.1 For each affected EGU (or group of EGUs monitored at a common stack), the owner or operator must use the ECMPS Client Tool to submit electronic quarterly emissions

reports to the Administrator, in an XML format specified by the Administrator, starting with a report for the later of:

7.2.5.1.1 The first calendar quarter of 2024; or

7.2.5.1.2 The calendar quarter in which the initial PM CEMS correlation test is completed.

7.2.5.2 You must submit the electronic reports within 30 days following the end of each calendar quarter, except for EGUs that have been placed in long-term cold storage (as defined in section 72.2 of this chapter).

7.2.5.3 Each of your electronic quarterly reports shall include the following information:

7.2.5.3.1 The date of report generation;

7.2.5.3.2 Facility identification information;

7.2.5.3.3 The information in sections 7.1.2 through 7.1.7 of this appendix that is applicable to your PM emission measurement methodology; and

7.2.5.3.4 The results of all daily quality assurance assessments, *i.e.*, calibration drift checks and (if applicable) sample volume checks of the PM CEMS, calibration error tests of the other continuous monitoring systems that are used to convert PM concentration to units of the standard, and (if applicable) flow monitor interference checks.

7.2.5.4 Compliance Certification. Based on a reasonable inquiry of those persons with primary responsibility for ensuring that all PM emissions from the affected unit(s) under this subpart have been correctly and fully monitored, the owner or operator must submit a compliance certification in support of each electronic quarterly emissions monitoring report. The compliance certification shall include a statement by a responsible official with that official's

name, title, and signature, certifying that, to the best of his or her knowledge, the report is true, accurate, and complete.

19. Subpart UUUUU of part 63 is amended by adding appendix D, to read as follows:

APPENDIX D TO SUBPART UUUUU OF PART 63---PM CPMS MONITORING PROVISIONS

1. GENERAL PROVISIONS

1.1 *Applicability.* These monitoring provisions apply to the continuous monitoring of the output from a PM CPMS, for the purpose of assessing continuous compliance with an applicable emissions limit in Table 1 or Table 2 to this subpart.

1.2 *Summary of the Method.* The output from an instrument capable of continuously measuring PM concentration is continuously recorded, either in milliamperes, PM concentration, or other units of measure. An operating limit for the PM CPMS is established initially, based on data recorded by the monitoring system during a performance stack test. The performance test is repeated annually, and the operating limit is reassessed. In-between successive performance tests, the output from the PM CPMS serves as an indicator of continuous compliance with the applicable emissions limit.

2. CONTINUOUS MONITORING OF THE PM CPMS OUTPUT

2.1 *System Design and Performance Criteria.* The PM CPMS must meet the design and performance criteria specified in 40 CFR 63.10010(h)(1)(i) through (iii) and 40 CFR 63.10023(b)(2)(iii) and (iv). In addition, an automated DAHS is required to record the output from the PM CPMS and to generate the quarterly electronic data reports required under section 3.2.4 of this appendix.

2.2 Installation Requirements. Install the PM CPMS at an appropriate location in the stack or duct, in accordance with 40 CFR 63.10010(a).

2.3 Determination of Operating Limits.

2.3.1 In accordance with 40 CFR 63.10007(a)(3), 40 CFR 63.10011(b), 40 CFR 63.10023(a), and Table 6 to this subpart, you must determine an initial site-specific operating limit for your PM CPMS, using data recorded by the monitoring system during a performance stack test that demonstrates compliance with one of the following emissions limits in Table 1 or Table 2 to this subpart: filterable PM; total non-Hg HAP metals; total HAP metals including Hg (liquid oil-fired units, only); individual non-Hg HAP metals; or individual HAP metals including Hg (liquid oil-fired units, only).

2.3.2 In accordance with 40 CFR 63.10005(d)(2)(i), you must perform the initial stack test no later than the applicable date in 40 CFR 63.9984(f), and according to 40 CFR 63.10005(d)(2)(iii) and 63.10006(a), the performance test must be repeated annually to document compliance with the emissions limit and to reassess the operating limit.

2.3.3 Calculate the operating limits according to 40 CFR 63.10023(b)(1) for existing units, and 40 CFR 63.10023(b)(2) for new units.

2.4 Data Reduction and Compliance Assessment.

2.4.1 Reduce the output from the PM CPMS to hourly averages, in accordance with 40 CFR 63.8(g)(2) and (5).

2.4.2 To determine continuous compliance with the operating limit, you must calculate 30-boiler operating day rolling average values of the output from the PM CPMS, in accordance with 40 CFR 63.10010(h)(3) through (6), 40 CFR 63.10021(c), and Table 7 to this subpart.

2.4.3 In accordance with 40 CFR 63.10005(d)(2)(ii), 40 CFR 63.10022(a)(2), and Table 4 to this subpart, the 30-boiler operating day rolling average PM CPMS output must be maintained at or below the operating limit. However, if exceedances of the operating limit should occur, you must follow the applicable procedures in 40 CFR 63.10021(c)(1) and (2).

3. RECORDKEEPING AND REPORTING.

3.1 *Recordkeeping Provisions.* You must keep the applicable records required under 40 CFR 63.10032(b) and (c) for your PM CPMS. In addition, you must maintain a file of all measurements, data, reports, and other information required by this appendix in a form suitable for inspection, for 5 years from the date of each record, in accordance with 40 CFR 63.10033.

3.1.1 Monitoring Plan Records.

3.1.1.1 You must develop and maintain a site-specific monitoring plan for your PM CPMS, in accordance with 63.10000(d).

3.1.1.2 In addition to the site-specific monitoring plan required under 40 CFR 63.10000(d), you must use the ECMPS Client Tool to prepare and maintain an electronic monitoring plan for your PM CPMS.

3.1.1.2.1 Contents of the Electronic Monitoring Plan. The electronic monitoring plan records must include the unit or stack ID number(s), monitoring location(s), the monitoring methodology used (*i.e.*, PM CPMS), the current operating limit of the PM CPMS (including the units of measure), unique system and component ID numbers, the make, model, and serial number of the PM CPMS, the analytical principle of the monitoring system, and monitor span and range information.

3.1.1.2.2 Electronic Monitoring Plan Updates. If you replace or make a change to a PM CPMS that is used to provide data under this subpart (including a change in the automated

DAHS) and the replacement or change affects information reported in the electronic monitoring plan (e.g., changes to the make, model and serial number when a PM CPMS is replaced), you must update the monitoring plan.

3.1.2 Operating Parameter Records. You must record the following information for each operating hour of each affected unit and for each group of units utilizing a common stack. For non-operating hours, record only the items in sections 3.1.2.1 and 3.1.2.2 of this appendix.

3.1.2.1 The date and hour;

3.1.2.2 The unit or stack operating time (rounded up to the nearest fraction of an hour (in equal increments that can range from 1 hundredth to 1 quarter of an hour, at the option of the owner or operator); and

3.1.2.3 If applicable, a flag to indicate that the hour is an exempt startup or shutdown hour.

3.1.3 PM CPMS Output Records. For each affected unit or common stack using a PM CPMS, you must record the following information for each unit or stack operating hour:

3.1.3.1 The date and hour;

3.1.3.2 Monitoring system and component identification codes for the PM CPMS, as provided in the electronic monitoring plan, for each operating hour in which the monitoring system is not out-of-control and a valid value of the output parameter is obtained;

3.1.3.3 The hourly average output from the PM CPMS, for each operating hour in which the monitoring system is not out-of-control and a valid value of the output parameter is obtained, either in milliamps, PM concentration, or other units of measure, as applicable;

3.1.3.4 A special code for each operating hour in which the PM CPMS is out-of-control and a valid value of the output parameter is not obtained; and

3.1.3.5 Percent monitor data availability for the PM CPMS, calculated in the manner established for SO₂, CO₂, O₂ or moisture monitoring systems according to section 75.32 of this chapter.

3.1.4 Records of PM CPMS Audits and Out-of-Control Periods. In accordance with 40 CFR 63.10010(h)(7), you must record, and make available upon request, the results of PM CPMS performance audits, as well as the dates of PM CPMS out-of-control periods and the corrective actions taken to return the system to normal operation.

3.2 Reporting Requirements.

3.2.1 General Reporting Provisions. You must comply with the following requirements for reporting PM CPMS data from each affected EGU (or group of EGUs monitored at a common stack) under this subpart:

3.2.1.1 Notifications, in accordance with section 3.2.2 of this appendix;

3.2.1.2 Monitoring plan reporting, in accordance with section 3.2.3 of this appendix;

3.2.1.3 Report submittals, in accordance with sections 3.2.4 and 3.2.5 of this appendix.

3.2.2 Notifications. You must provide notifications for the affected unit (or group of units monitored at a common stack) in accordance with 40 CFR 63.10030.

3.2.3 Monitoring Plan Reporting. For each affected unit (or group of units monitored at a common stack) under this subpart using a PM CPMS you must make monitoring plan submittals as follows:

3.2.3.1 For units using the PM CPMS compliance option prior to January 1, 2024, submit the electronic monitoring plan information in section 3.1.1.2.1 of this appendix prior to or concurrent with the first required electronic quarterly report. For units switching to the PM CPMS methodology on or after January 1, 2024, submit the electronic monitoring plan no later

than 21 days prior to the date on which the PM test is performed to establish the initial operating limit.

3.2.3.2 Whenever an update of the electronic monitoring plan is required, as provided in section 3.1.1.2.2 of this appendix, the updated information must be submitted either prior to or concurrent with the relevant quarterly electronic emissions report.

3.2.3.3 All electronic monitoring plan submittals and updates shall be made to the Administrator using the ECMPS Client Tool.

3.2.3.4 In accordance with 40 CFR 63.10000(d), you must submit the site-specific monitoring plan described in section 3.1.1.1 of this appendix to the Administrator, if requested.

3.2.4 Electronic Quarterly Reports.

3.2.4.1 For each affected EGU (or group of EGUs monitored at a common stack) that is subject to the provisions of this appendix, reporting of hourly responses from the PM CPMS will begin either with the first operating hour in the third quarter of 2023 or the first operating hour after completion of the initial stack test that establishes the operating limit, whichever is later. The owner or operator must then use the ECMPS Client Tool to submit electronic quarterly reports to the Administrator, in an XML format specified by the Administrator, starting with a report for the later of:

3.2.4.1.1 The first calendar quarter of 2024; or

3.2.4.1.2 The calendar quarter in which the initial operating limit for the PM CPMS is established.

3.2.4.2 The electronic quarterly reports must be submitted within 30 days following the end of each calendar quarter, except for units that have been placed in long-term cold storage (as defined in section 72.2 of this chapter).

3.2.4.3 Each electronic quarterly report shall include the following information:

3.2.4.3.1 The date of report generation;

3.2.4.3.2 Facility identification information; and

3.2.4.3.3 The information in sections 3.1.2 and 3.1.3 of this appendix.

3.2.4.4 Compliance Certification. Based on a reasonable inquiry of those persons with primary responsibility for ensuring that the output from the PM CPMS has been correctly and fully monitored, the owner or operator shall submit a compliance certification in support of each electronic quarterly report. The compliance certification shall include a statement by a responsible official with that official's name, title, and signature, certifying that, to the best of his or her knowledge, the report is true, accurate, and complete.

3.2.5 Performance Stack Test Results. You must use the ECMPS Client Tool to report the results of all performance stack tests conducted to document compliance with the applicable emissions limit in Table 1 or Table 2 to this subpart, as follows:

3.2.5.1 Report a summary of each test electronically, in XML format, in the relevant quarterly compliance report under 40 CFR 63.10031(g); and

3.2.5.2 Provide a complete stack test report as a PDF file, in accordance with 40 CFR 63.10031(f) or (h), as applicable.

20. Subpart UUUUU of part 63 is amended by adding appendix E, to read as follows:

APPENDIX E TO SUBPART UUUUU OF PART 63---DATA ELEMENTS

1.0 You must record the electronic data elements in this appendix that apply to your compliance strategy under this subpart. The applicable data elements in sections 2 through 13 of this appendix must be reported in the quarterly compliance reports required under 40 CFR 63.10031(g), in an XML format prescribed by the Administrator, starting with a report that

covers the first quarter of 2024. For stack tests used to demonstrate compliance, RATAs, PM CEMS correlations, RRAs and RCAs that are completed on and after January 1, 2024, the applicable data elements in sections 17 through 30 of this appendix must be reported in an XML format prescribed by the Administrator, and the information in section 31 of this appendix must be reported in as one or more PDF files.

2.0 *MATS Compliance Report Root Data Elements*. You must record the following data elements and include them in each quarterly compliance report:

2.1 Energy Information Administration's Office of Regulatory Information Systems

(ORIS) Code;

2.2 Facility Name;

2.3 Facility Registry Identifier;

2.4 Title 40 Part;

2.5 Applicable Subpart;

2.6 Calendar Year;

2.7 Calendar Quarter; and

2.8 Submission Comment (optional)

3.0 *Performance Stack Test Summary*. If you elect to demonstrate compliance using periodic performance stack testing (including 30-boiler operating day Hg LEE tests), record the following data elements for each test:

3.1 Parameter

3.2 Test Location ID;

3.3 Test Number;

3.4 Test Begin Date, Hour, and Minute;

- 3.5 Test End Date, Hour, and Minute;
- 3.6 Timing of Test (either performed on-schedule according to 40 CFR 63.10006(f), or was late);
- 3.7 Averaging Plan Indicator;
- 3.8 Averaging Group ID (if applicable);
- 3.9 EPA Test Method Code;
- 3.10 Emission Limit, Including Units of Measure;
- 3.11 Average Pollutant Emission Rate;
- 3.12 LEE Indicator;
- 3.13 LEE Basis (if applicable); and
- 3.14 Submission Comment (optional)

4.0 *Operating limit Data (PM CPMS, only):*

- 4.1 Parameter Type;
- 4.2 Operating Limit; and
- 4.3 Units of Measure.

5.0 *Performance Test Run Data.* For each run of the performance stack test, record the following data elements:

- 5.1 Run Number
- 5.2 Run Begin Date, Hour, and Minute;
- 5.3 Run End Date, Hour, and Minute;
- 5.4 Pollutant Concentration and Units of Measure;
- 5.5 Emission Rate;
- 5.6 EPA Test Method 19 Equation (if applicable);

5.7 Total Sampling Time; and

5.8 Total Sample Volume.

6.0 *Conversion Parameters*. For the parameters that are used to convert the pollutant concentration to units of the emission standard (including, as applicable, CO₂ or O₂ concentration, stack gas flow rate, stack gas moisture content, F-factors, and gross output), record:

6.1 Parameter Type;

6.2 Parameter Source; and

6.3 Parameter Value, Including Units of Measure.

7.0 *Quality Assurance Parameters*: For key parameters that are used to quality-assure the reference method data (including, as applicable, filter temperature, percent isokinetic, leak check results, percent breakthrough, percent spike recovery, and relative deviation), record:

7.1 Parameter Type;

7.2 Parameter Value; and

7.3 Pass/Fail Status.

8.0 *Averaging Group Configuration*. If a particular EGU or common stack is included in an averaging plan, record the following data elements:

8.1 Parameter Being Averaged;

8.2 Averaging Group ID; and

8.3 Unit or Common Stack ID.

9.0 *Compliance Averages*. If you elect to (or are required to) demonstrate compliance using continuous monitoring system(s) on a 30-boiler operating day rolling average basis (or on a 30- or 90-group boiler operating day rolling WAER basis, if your monitored EGU or common

stack is in an averaging plan), you must record the following data elements for each average emission rate (or, for units in an averaging plan, for each WAER):

9.1 Unit or Common Stack ID;

9.2 Averaging Group ID (if applicable);

9.3 Parameter Being Averaged;

9.4 Date;

9.5 Average Type;

9.6 Units of Measure; and

9.7 Average Value.

9.8 Comment Field.

10.0 *Unit Information*. You must record the following data elements for each EGU:

10.1 Unit ID;

10.2 Date of Last Tune-up; and

10.3 Emergency Bypass Information. If your coal-fired EGU, solid oil-derived fuel-fired EGU, or IGCC is equipped with a main stack and a bypass stack (or bypass duct) configuration, and has qualified to use the LEE compliance option, you must report the following emergency bypass information annually, in the compliance report for the fourth calendar quarter of the year:

10.3.1 The number of emergency bypass hours for the year, as a percentage of the EGU's annual operating hours;

10.3.2 A description of each emergency bypass event during the year, including the cause and corrective actions taken;

10.3.3 An explanation of how clean fuels were burned to the maximum extent possible during each emergency bypass event;

10.3.4 An estimate of the emissions released during each emergency bypass event. You must also show whether LEE status has been retained or lost, based on the emissions estimate and the results of the previous LEE retest; and

10.3.5 If there were no emergency bypass events during the year, a statement to that effect.

11.0 *Fuel Usage Information*. If subject to an emissions limit, record the following monthly fuel usage information:

11.1 Calendar Month;

11.2 Each Type of Fuel Used During the Calendar Month in the Quarter;

11.3 Quantity of Each Type of Fuel Combusted in Each Calendar Month in the Quarter, with Units of Measure;

11.4 New Fuel Type Indicator (if applicable); and

11.5 Date of Performance Test Using the New Fuel (if applicable).

12.0 *Malfunction Information (if applicable)*: If there was a malfunction of the process equipment or control equipment during the reporting period that caused (or may have caused) an exceedance of an emissions or operating limit, record:

12.1 Event Begin Date and Hour (if known);

12.2 Event End Date and Hour;

12.3 Malfunction Description; and

12.4 Corrective Action.

13.0 *Deviations and Monitoring Downtime*. If there were any deviations or monitoring downtime during the reporting period, record:

13.1 Unit, Common Stack, or Averaging Group ID;

13.2 The nature of the deviation, as either:

13.2.1 Emission limit exceeded;

13.2.2 Operating limit exceeded;

13.2.3 Work practice standard not met;

13.2.4 Testing requirement not met;

13.2.5 Monitoring requirement not met;

13.2.6 Monitoring downtime incurred; or

13.2.7 Other requirement not met.

13.3 A description of the deviation, or monitoring downtime, as follows:

13.3.1 For a performance stack test or a 30- (or 90-) boiler operating day rolling average that exceeds an emissions or operating limit, record the parameter (*e.g.*, HCl, Hg, PM), the limit that was exceeded, and either the date of the non-complying performance test or the beginning and ending dates of the non-complying rolling average;

13.3.2 If an unmonitored bypass stack was used during the reporting period, record the total number of hours of bypass stack usage;

13.3.3 For periods where valid monitoring data are not reported during the reporting period, record the monitored parameter, the total source operating time (hours), and the total number of hours of monitoring deviation or downtime and other information, as indicated, for:

13.3.3.1 Monitoring system malfunctions / repairs (deviation and downtime);

13.3.3.2 Out-of-control periods / repairs (deviation and downtime);

13.3.3.3 Non-monitoring equipment malfunctions (downtime);

13.3.3.4 QA/QC activities (excluding zero and span checks) (downtime);

13.3.3.5 Routine maintenance (downtime);

13.3.3.6 Other known causes (downtime); and

13.3.3.7 Unknown causes (downtime).

13.3.4 If a performance stack test was due within the quarter but was not done, record the parameter (*e.g.*, HCl, PM), the test deadline, and a statement that the test was not done as required;

13.3.5 For a late performance stack test conducted during the quarter, record the parameter, the test deadline, and the number of days that elapsed between the test deadline and the test completion date.

13.4 Record any corrective actions taken in response to the deviation.

13.5 If there were no deviations and/or no monitoring downtime during the quarter, record a statement to that effect.

14.0 *Reference Method Data Elements*. For each of the following tests that is completed on and after January 1, 2024, you must record and report the applicable electronic data elements in sections 17 through 29 of this appendix, pertaining to the reference method(s) used for the test (see section 16 of this appendix).

14.1 Each quarterly, annual, or triennial stack test used to demonstrate compliance (including 30- (or 90-) boiler operating day Hg LEE tests and PM tests used to set operating limits for PM CPMS);

14.2 Each RATA of your Hg, HCl, HF, or SO₂ CEMS or each RATA of your Hg sorbent trap monitoring system; and

14.3 Each correlation test, RRA and each RCA of your PM CEMS.

15.0 You must report the applicable data elements for each test described in section 14 of this appendix in an XML format prescribed by the Administrator.

15.1 For each stack test completed during a particular calendar quarter and contained in the quarterly compliance report, you must submit along with the quarterly compliance report, the data elements in sections 17 and 18 of this appendix (which are common to all tests) and the applicable data elements in sections 19 through 31 of this appendix associated with the reference method(s) used.

15.2 For each RATA, PM CEMS correlation, RRA, or RCA, when you use the ECMPS Client Tool to report the test results as required under appendix A, B, or C to this subpart or, for SO₂ RATAs under part 75 of this chapter, you must submit along with the test results, the data elements in sections 17 and 18 of this appendix and, for each test run, the data elements in sections 19 through 30 of this appendix that are associated with the reference method(s) used.

15.3 For each stack test, RATA, PM CEMS correlation, RRA, and RCA, you must also provide the information described in section 31 of this appendix as a PDF file, either along with the quarterly compliance report (for stack tests) or together with the test results reported under appendix A, B, or C to this subpart or part 75 of this chapter (for RATAs, RRAs, RCAs, or PM CEMS correlations).

16.0 *Applicable Reference Methods.* One or more of the following EPA reference methods is needed for the tests described in sections 14.1 through 14.3 of this appendix: Method 1, 2, 3A, 4, 5, 5D, 6C, 26, 26A, 29, and/or 30B.

16.1 Application of EPA test Methods 1 and 2. If you use periodic stack testing to comply with an *output-based* emissions limit, you must determine the stack gas flow rate during each performance test run in which EPA test Method 5, 5D, 26, 26A, 29, or 30B is used, in order to convert the measured pollutant concentration to units of the standard. For EPA test Methods 5, 5D, 26A and 29, which require isokinetic sampling, the delta-P readings made with the pitot tube

and manometer at the EPA test Method 1 traverse points, taken together with measurements of stack gas temperature, pressure, diluent gas concentration (from a separate EPA test Method 3A or 3B test) and moisture, provide the necessary data for the EPA test Method 2 flow rate calculations. Note that even if you elect to comply with a *heat input-based* standard, when EPA test Method 5, 5D, 26A, or 29 is used, you must still use EPA test Method 2 to determine the average stack gas velocity (v_s), which is needed for the percent isokinetic calculation. The EPA test Methods 26 and 30B do not require isokinetic sampling; therefore, when either of these methods is used, if the stack gas flow rate is needed to comply with the applicable *output-based* emissions limit, you must make a separate EPA test Method 2 determination during each test run.

16.2 Application of EPA test Method 3A. If you elect to perform periodic stack testing to comply with a *heat input-based* emissions limit, a separate measurement of the diluent gas (CO_2 or O_2) concentration is required for each test run in which EPA test Method 5, 5D, 26, 26A, 29, or 30B is used, in order to convert the measured pollutant concentration to units of the standard. The EPA test Method 3A is the preferred CO_2 or O_2 test method, although EPA test Method 3B may be used instead. Diluent gas measurements are also needed for stack gas molecular weight determinations when using EPA test Method 2.

16.3 Application of EPA test Method 4. For performance stack tests, depending on which equation is used to convert pollutant concentration to units of the standard, measurement of the stack gas moisture content, using EPA test Method 4, may also be required for each test run. The EPA test Method 4 moisture data are also needed for the EPA test Method 2 calculations (to determine the molecular weight of the gas) and for the RATA of an Hg CEMS that measures on a wet basis, when EPA test Method 30B is used. Other applications that require EPA test Method

4 moisture determinations include: RATAs of an SO₂ monitor, when the reference method and CEMS data are measured on a different moisture basis (wet or dry); conversion of wet-basis pollutant concentrations to the units of a *heat input-based* emissions limit when certain EPA test Method 19 equations are used (*e.g.*, Eq. 19-3, 19-4, or 19-8); and stack gas molecular weight determinations. When EPA test Method 5, 5D, 26A, or 29 is used for the performance test, the EPA test Method 4 moisture determination may be made by using the water collected in the impingers together with data from the dry gas meter; alternatively, a separate EPA test Method 4 determination may be made. However, when EPA test Method 26 or 30B is used, EPA test Method 4 must be performed separately.

16.4 Applications of EPA test Methods 5 and 5D. The EPA test Method 5 (or, if applicable 5D) must be used for the following applications: to demonstrate compliance with a filterable PM emissions limit; for PM tests used to set operating limits for PM CPMS; and for the initial correlations, RRAs and RCAs of a PM CEMS.

16.5 Applications of EPA test Method 6C. If you elect to monitor SO₂ emissions from your coal-fired EGU as a surrogate for HCl, the SO₂ CEMS must be installed, certified, operated, and maintained according to 40 CFR Part 75. Part 75 allows the use of EPA test Methods 6, 6A, 6B, and 6C for the required RATAs of the SO₂ monitor. However, in practice, only instrumental EPA test Method 6C is used.

16.6 Applications of EPA test Methods 26 and 26A. The EPA test Method 26A may be used for quarterly HCl or HF stack testing, or for the RATA of an HCl or HF CEMS. The EPA test Method 26 may be used for quarterly HCl or HF stack testing; however, for the RATAs of an HCl monitor that is following PS 18 and Procedure 6 in appendices B and F to part 60 of this chapter, EPA test Method 26 may only be used if approved upon request.

16.7 Applications of EPA test Method 29. The EPA test Method 29 may be used for periodic performance stack tests to determine compliance with individual or total HAP metals emissions limits. For coal-fired EGUs, the total HAP emissions limits exclude Hg.

16.8 Applications of EPA test Method 30B. The EPA test Method 30B is used for 30- (or 90-) boiler operating day Hg LEE tests and RATAs of Hg CEMS and sorbent trap monitoring systems, and it may be used for quarterly Hg stack testing (oil-fired EGUs, only).

17.0 *Facility and Test Company Information*. In accordance with 40 CFR 63.7(e)(3), a test is defined as three or more runs of one or more EPA Reference Method(s) conducted to measure the amount of a specific regulated pollutant, pollutants, or surrogates being emitted from a particular EGU (or group of EGUs that share a common stack), and to satisfy requirements of this subpart. On or after January 1, 2024, you must report the data elements in sections 17 and 18, each time that you complete a required performance stack test, RATA, PM CEMS correlation, RRA, or RCA at the affected EGU(s), using EPA test Method 5, 5B, 5D, 6C, 26, 26A, 29, or 30B. You must also report the applicable data elements in sections 19 through 25 of this appendix for each test. If any separate, corresponding EPA test Method 2, 3A, or 4 test is conducted in order to convert a pollutant concentration to the units of the applicable emission standard given in Table 1 or Table 2 of this subpart or to convert pollutant concentration from wet to dry basis (or vice-versa), you must also report the applicable data elements in sections 26 through 31 of this appendix.

The applicable data elements in sections 17 through 31 of this appendix must be submitted separately, in XML format, along with the quarterly Compliance Report (for stack tests) or along with the electronic test results submitted to the ECMPS Client Tool (for CMS performance evaluations). The Electronic Reporting Tool (ERT) or an equivalent schema can be

utilized to create this XML file. *Note:* Ideally, for all of the tests completed at a given facility in a particular calendar quarter, the applicable data elements in sections 17 through 31 of this appendix should be submitted together in one XML file. However, as shown in Table 8 to this subpart, the timelines for submitting stack test results and CMS performance evaluations are not identical. Therefore, for calendar quarters in which both types of tests are completed, it may not be possible to submit the applicable data elements for all of those tests in a single XML file; separate submittals may be necessary to meet the applicable reporting deadlines.

17.1 Part;

17.2 Subpart;

17.3 ORIS Code;

17.4 Facility Name;

17.5 Facility Address;

17.6 Facility City;

17.7 Facility County;

17.8 Facility State;

17.9 Facility Zip Code;

17.10 Facility Point of Contact;

17.11 Facility Contact Phone Number;

17.12 Facility Contact Email;

17.13 EPA Facility Registration System Number;

17.14 Source Classification Code;

17.15 State Facility ID;

17.16 Project Number;

17.17 Name of Test Company;

17.18 Test Company Address;

17.19 Test Company City;

17.20 Test Company State;

17.21 Test Company Zip Code;

17.22 Test Company Point of Contact;

17.23 Test Company Contact Phone Number;

17.24 Test Company Contact Email; and

17.25 Test Comment (optional, PM CPMS operating limits, if applicable).

18.0 *Source Information Data Elements*. You must report the following data elements, as applicable, for each source for which at least one test is included in the XML file:

18.1 Source ID (sampling location);

18.2 Stack (duct) Diameter (circular stack) (in.);

18.3 Equivalent Diameter (rectangular duct or stack) (in.);

18.4 Area of Stack;

18.5 Control Device Code; and

18.6 Control Device Description.

19.0 *Run-Level and Lab Data Elements for EPA test Methods 5, 5B, 5D, 26A, and 29*.

You must report the appropriate Source ID (*i.e.*, Data Element 18.1) and the following data elements, as applicable, for each run of each performance stack test, PM CEMS correlation test, RATA, RRA, or RCA conducted using isokinetic EPA test Method 5, 5B, 5D, or 26A. If your EGU is oil-fired and you use EPA test Method 26A to conduct stack tests for both HCl and HF, you must report these data elements separately for each pollutant. When you use EPA test

Method 29 to measure the individual HAP metals, total filterable HAP metals and total HAP metals, report only the run-level data elements (19.1, 19.3 through 19.30, and 19.38 through 19.41), and the point-level and lab data elements in sections 20 and 21 of this appendix:

19.1 Test Number;

19.2 Pollutant Name;

19.3 EPA Test Method;

19.4 Run Number;

19.5 Corresponding Reference Method(s), if applicable;

19.6 Corresponding Reference Method(s) Run Number, if applicable;

19.7 Number of Traverse Points;

19.8 Run Begin Date;

19.9 Run Start Time (clock time start);

19.10 Run End Date;

19.11 Run End Time (clock time end);

19.12 Barometric Pressure;

19.13 Static Pressure;

19.14 Cumulative Elapsed Sampling Time;

19.15 Percent O₂;

19.16 Percent CO₂;

19.17 Pitot Tube ID;

19.18 Pitot Tube Calibration Coefficient;

19.19 Nozzle Calibration Diameter;

19.20 F-Factor (F_d, F_w, or F_c);

- 19.21 Calibration Coefficient of Dry Gas Meter (Y);
- 19.22 Total Volume of Liquid Collected in Impingers and Silica Gel;
- 19.23 Percent Moisture – Actual;
- 19.24 Dry Molecular Weight of Stack Gas;
- 19.25 Wet Molecular Weight of Stack Gas;
- 19.26 Initial Reading of Dry Gas Meter Volume (dcf);
- 19.27 Final Reading of Dry Gas Meter Volume (dcf);
- 19.28 Stack Gas Velocity - fps;
- 19.29 Stack Gas Flow Rate – dscfm;
- 19.30 Type of Fuel;
- 19.31 Pollutant Mass Collected (value);
- 19.32 Pollutant Mass Unit of Measure;
- 19.33 Detection Limit Flag;
- 19.34 Pollutant Concentration;
- 19.35 Pollutant Concentration Unit of Measure;
- 19.36 Pollutant Emission Rate;
- 19.37 Pollutant Emission Rate Units of Measure (in units of the standard);
- 19.38 Compliance Limit Basis (heat input or electrical output);
- 19.39 Heat Input or Electrical Output Unit of Measure;
- 19.40 Process Parameter (value);
- 19.41 Process Parameter Unit of Measure;
- 19.42 Converted Concentration for PM CEMS only; and
- 19.43 Converted Concentration Units (units of correlation for PM CEMS).

20.0 *Point-Level Data Elements for EPA test Methods 5, 5B, 5D, 26A, & 29.* To link the point-level data with the run data in the xml schema, you must report the Source ID (*i.e.*, Data Element 18.1), EPA Test Method (Data Element 19.3), Run Number (Data Element 19.4), and Run Begin Date (Data Element 19.8) with the following point-level data elements for each run of each performance stack test, PM CEMS correlation test, RATA, RRA, or RCA conducted using isokinetic EPA test Method 5, 5B, 5D, 26A, or 29. Note that these data elements are required for all EPA test Method 29 applications, whether the method is being used to measure the total or individual HAP metals concentrations:

20.1 Traverse Point ID;

20.2 Stack Temperature;

20.3 Differential Pressure Reading (ΔP);

20.4 Orifice Pressure Reading (ΔH);

20.5 Dry Gas Meter Inlet Temperature;

20.6 Dry Gas Meter Outlet Temperature; and

20.7 Filter Temperature.

21.0 *Laboratory Results for EPA test Methods 29 Total or Individual Multiple HAP Metals.* If you use EPA test Method 29 and elect to comply with the total or individual HAP metals standards, you must report run-level data elements 19.1 through 19.34 in Section 19, and the point-level data elements in Section 20. To link the laboratory data with the run data in the xml schema, you must report the Source ID (*i.e.*, Data Element 18.1), EPA Test Method (Data Element 19.3), Run Number (Data Element 19.4), and Run Begin Date (Data Element 19.8) with the results of the laboratory analyses. Regardless of whether you elect to comply with the total HAP metals standard or the

individual HAP metals standard, you must report the front half catch, the back half catch, and the sum of the front and back half catches collected with EPA test Method 29 for each individual HAP metal and for the total HAP metals. The list of individual HAP metals is Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cobalt, Lead, Manganese, Nickel, Selenium, and Mercury (if applicable). You must also calculate and report the pollutant emission rates(s) in relation to the standard(s) with which you have elected to comply and the units specified in Table 5 as follows:

21.1 Each Individual HAP metal total mass collected:

21.1.1 Pollutant Name;

21.1.2 Pollutant Mass Collected;

21.1.3 Pollutant Mass Units of Measure; and

21.1.4 Detection Limit Flag.

21.2 Each Individual HAP metal Front Half:

21.2.1 Pollutant Name;

21.2.2 Pollutant Mass Collected;

21.2.3 Pollutant Mass Units of Measure; and

21.2.4 Detection Limit Flag.

21.3 Each Individual HAP metal Back Half:

21.3.1 Pollutant Name;

21.3.2 Pollutant Mass Collected;

21.3.3 Pollutant Mass Units of Measure; and

21.3.4 Detection Limit Flag.

21.4 Each Individual HAP metal concentration:

21.4.1 Pollutant Name;

21.4.2 Pollutant Concentration; and

21.4.3 Pollutant Concentration Units of Measure.

21.5 Each Individual HAP metal emission rate in units of the standard:

21.5.1 Pollutant Name;

21.5.2 Pollutant Emission Rate; and

21.5.3 Pollutant Emission Rate Units of Measure.

21.6 Each Individual HAP metal emission rate in units of lbs/MMBTU or lbs/MW

(per Table 5):

21.6.1 Pollutant Name;

21.6.2 Pollutant Emission Rate; and

21.6.3 Pollutant Emission Rate Units of Measure.

21.7 Total Filterable HAP metals mass collected:

21.7.1 Pollutant Name;

21.7.2 Pollutant Mass Collected;

21.7.3 Pollutant Mass Units of Measure; and

21.7.4 Detection Limit Flag.

21.8 Total Filterable HAP metals concentration:

21.8.1 Pollutant Name;

21.8.2 Pollutant Concentration; and

21.8.3 Pollutant Concentration Units of Measure.

21.9 Total Filterable HAP metals in units of lbs/MMBtu or lbs/MW (per Table 5):

21.9.1 Pollutant Name;

21.9.2 Pollutant Emission Rate; and

21.9.3 Pollutant Emission Rate Units of Measure.

21.10 Total HAP metals mass collected:

21.10.1 Pollutant Name;

21.10.2 Pollutant Mass Collected;

21.10.3 Pollutant Mass Units of Measure; and

21.10.4 Detection Limit Flag.

21.11 Total HAP metals concentration

21.11.1 Pollutant Name;

21.11.2 Pollutant Concentration; and

21.11.3 Pollutant Concentration Units of Measure.

21.12 Total HAP metals Emission Rate in Units of the Standard:

21.12.1 Pollutant Name;

21.12.2 Pollutant Emission Rate; and

21.12.3 Pollutant Emission Rate Units of Measure.

21.13 Total HAP metals Emission Rate in lbs/MMBtu or lbs/MW (per Table 5):

21.13.1 Pollutant Name;

21.13.2 Pollutant Emission Rate; and

21.13.3 Pollutant Emission Rate Units of Measure.

22.0 *Run-Level and Lab Data Elements for EPA test Method 26.* If you use EPA test Method 26, you must report the Source ID (*i.e.*, Data Element 18.1) and the following run-level data elements for each test run. If your EGU is oil-fired and you use EPA test Method 26 to conduct stack tests for both HCl and HF, you must report these data elements

separately for each pollutant:

- 22.1 Test Number;
- 22.2 Pollutant Name;
- 22.3 EPA Test Method;
- 22.4 Run Number;
- 22.5 Corresponding Reference Method(s), if applicable;
- 22.6 Corresponding Reference Method(s) Run Number, if applicable;
- 22.7 Number of Traverse Points;
- 22.8 Run Begin Date;
- 22.9 Run Start Time (clock start time);
- 22.10 Run End Date;
- 22.11 Run End Time (clock end time);
- 22.12 Barometric Pressure;
- 22.13 Cumulative Elapsed Sampling Time;
- 22.14 Calibration Coefficient of Dry Gas Meter (Y);
- 22.15 Initial Reading of Dry Gas Meter Volume (dcf);
- 22.16 Final Reading of Dry Gas Meter Volume (dcf);
- 22.17 Percent O₂;
- 22.18 Percent CO₂;
- 22.19 Type of Fuel;
- 22.20 F-Factor (F_d, F_w, or F_c);
- 22.21 Pollutant Mass Collected (value);
- 22.22 Pollutant Mass Units of Measure;

- 22.23 Detection Limit Flag;
- 22.24 Pollutant Concentration;
- 22.25 Pollutant Concentration Unit of Measure;
- 22.26 Compliance Limit Basis (heat input or electrical output);
- 22.27 Heat Input or Electrical Output Unit of Measure;
- 22.28 Process Parameter (value);
- 22.29 Process Parameter Unit of Measure;
- 22.30 Pollutant Emission Rate; and
- 22.31 Pollutant Emission Rate Units of Measure (in the units of the standard).

23.0 *Point-Level Data Elements for EPA test Method 26.* To link the point-level data in this section with the run-level data in the XML schema, you must report the Source ID (*i.e.*, Data Element 18.1), EPA Test Method (Data Element 22.3), Run Number (Data Element 22.4), and Run Begin Date (Data Element 22.8) from section 22 and the following point-level data elements for each run of each EPA test Method 26 test:

- 23.1 Traverse Point ID;
- 23.2 Filter Temperature; and
- 23.3 Dry Gas Meter Temperature.

24.0 *Run-Level Data for EPA test Method 30B.* You must report Source ID (*i.e.* Data Element 18.1) and the following run-level data elements for each EPA test Method 30B test run:

- 24.1 Test Number;
- 24.2 Pollutant Name;
- 24.3 EPA Test Method;
- 24.4 Run Number;

- 24.5 Corresponding Reference Method(s), if applicable;
- 24.6 Corresponding Reference Method(s) Run Number, if applicable;
- 24.7 Number of Traverse Points;
- 24.8 Run Begin Date;
- 24.9 Run Start Time (clock time start);
- 24.10 Run End Date;
- 24.11 Run End Time (clock time end);
- 24.12 Barometric Pressure;
- 24.13 Percent O₂;
- 24.14 Percent CO₂;
- 24.15 Cumulative Elapsed Sampling Time;
- 24.16 Calibration Coefficient of Dry Gas Meter Box A (Y);
- 24.17 Initial Reading of Dry Gas Meter Volume (A);
- 24.18 Final Reading of Dry Gas Meter Volume (A);
- 24.19 Calibration Coefficient of Dry Gas Meter Box B (Y);
- 24.20 Initial Reading of Dry Gas Meter Volume (B);
- 24.21 Final Reading of Dry Gas Meter Volume (B);
- 24.22 Gas Sample Volume Units of Measure;
- 24.23 Post-Run Leak Rate (A);
- 24.24 Post-Run Leak Check Vacuum (A);
- 24.25 Post-Run Leak Rate (B);
- 24.26 Post-Run Leak Check Vacuum (B);
- 24.27 Sorbent Trap ID (A);

- 24.28 Pollutant Mass Collected, Section 1 (A);
 - 24.29 Pollutant Mass Collected, Section 2 (A);
 - 24.30 Mass of Spike on Sorbent Trap A;
 - 24.31 Total Pollutant Mass Trap A;
 - 24.32 Sorbent Trap ID (B);
 - 24.33 Pollutant Mass Collected, Section 1 (B);
 - 24.34 Pollutant Mass Collected, Section 2 (B);
 - 24.35 Mass of Spike on Sorbent Trap B;
 - 24.36 Total Pollutant Mass Trap B;
 - 24.37 Pollutant Mass Units of Measure;
 - 24.38 Pollutant Average Concentration;
 - 24.39 Pollutant Concentration Units of Measure;
 - 24.40 Method Detection Limit;
 - 24.41 Percent Spike Recovery;
 - 24.42 Type of Fuel;
 - 24.43 F-Factor (F_d , F_w , or F_c);
 - 24.44 Compliance Limit Basis (heat input or electrical output);
 - 24.45 Heat Input or Electrical Output Unit of Measure;
 - 24.46 Process Parameter (value);
 - 24.47 Process Parameter Unit of Measure;
 - 24.48 Pollutant Emission Rate; and
 - 24.49 Pollutant Emission Rate Unit of Measure (in the units of the standard).
- 25.0 *Point-Level Data Elements for EPA test Method 30B*. You must report the Source

ID (*i.e.*, Data Element 18.1), EPA Test Method (Data Element 24.3), Run Number (Data Element 24.4), and Run Begin Date (Data Element 24.8) and the following point-level data elements for each run of each EPA test Method 30B test:

25.1 Traverse Point ID;

25.2 Dry Gas Meter Temperature (A);

25.3 Sample Flow Rate (A) (L/min);

25.4 Dry Gas Meter Temperature (B); and

25.5 Sample Flow Rate (B) (L/min).

26.0 *Pre-Run Data Elements for EPA test Methods 3A and 6C.* You must report the Source ID (*i.e.*, Data Element 18.1) and the following pre-run data elements for each SO₂ RATA using instrumental EPA test Method 6C, and for each instrumental EPA test Method 3A O₂ or CO₂ test that is performed to convert a pollutant concentration to the units of measure of the applicable emission unit of standard in Table 1 or 2 of this subpart:

26.1 Test Number;

26.2 EPA Test Method;

26.3 Calibration Gas Cylinder Analyte;

26.4 Cylinder Gas Units of Measure;

26.5 Date of Calibration;

26.6 Calibration Low-Level Gas Cylinder ID;

26.7 Calibration Low-Level Gas Concentration;

26.8 Calibration Low-Level Cylinder Expiration Date;

26.9 Calibration Mid-Level Gas Cylinder ID;

26.10 Calibration Mid-Level Gas Concentration;

- 26.11 Calibration Mid-Level Cylinder Expiration Date;
- 26.12 Calibration High-Level Gas Cylinder ID;
- 26.13 Calibration Span (High-Level) Gas Concentration;
- 26.14 Calibration High-Level Cylinder Expiration Date;
- 26.15 Low-Level Gas Response;
- 26.16 Low-Level Calibration Error;
- 26.17 Low-Level Alternate Performance Specification (APS) Flag;
- 26.18 Mid-Level Gas Response;
- 26.19 Mid-Level Calibration Error;
- 26.20 Mid-Level APS Flag;
- 26.21 High-Level Gas Response;
- 26.22 High-Level Calibration Error; and
- 26.23 High-Level APS Flag.

27.0 *Run-Level Data Elements for EPA test Methods 3A and 6C.* You must report the Source ID (*i.e.*, Data Element 18.1) and following run-level data elements for each run of each SO₂ RATA using instrumental EPA test Method 6C, and for each run of each corresponding instrumental EPA test Method 3A test that is performed to convert a pollutant concentration to the applicable emission unit of standard in Table 1 or 2 of this subpart:

- 27.1 Test Number;
- 27.2 Pollutant or Analyte Name;
- 27.3 EPA Test Method;
- 27.4 Run Number;
- 27.5 Corresponding Reference Method(s), if applicable;

27.6 Corresponding Reference Method(s) Run Number(s), if applicable;

27.7 Number of Traverse Points;

27.8 Run Begin Date;

27.9 Run Start Time (clock time start);

27.10 Run End Date;

27.11 Run End Time (clock time end);

27.12 Cumulative Elapsed Sampling Time;

27.13 Upscale (mid or high) Gas Level;

27.14 Pre-Run Low-Level Response;

27.15 Pre-Run Low-Level System Bias;

27.16 Pre-Run Low-Level Bias APS Flag;

27.17 Pre-Run Upscale (mid or high) Response;

27.18 Pre-Run Upscale (mid or high) System Bias;

27.19 Pre-Run Upscale (mid or high) Bias APS Flag;

27.20 Post-Run Low-Level Response;

27.21 Post-Run Low-Level System Bias;

27.22 Post-Run Low-Level Bias APS Flag;

27.23 Post-Run Low-Level Drift;

27.24 Post-Run Low-Level Drift APS Flag;

27.25 Post-Run Upscale (mid or high) Response;

27.26 Post-Run Upscale (mid or high) System Bias;

27.27 Post-Run Upscale (mid or high) System Bias APS Flag;

27.28 Post-Run Upscale (mid or high) Drift;

- 27.29 Post-Run Upscale (mid or high) Drift APS Flag;
- 27.30 Unadjusted Raw Emissions Average Concentration;
- 27.31 Calculated Average Concentration, Adjusted for Bias (C_{gas});
- 27.32 Concentration Units of Measure (Dry or wet);
- 27.33 Type of Fuel;
- 27.34 Process Parameter (value); and
- 27.35 Process Parameter Units of Measure.

28.0 *Run-Level Data Elements for EPA test Method 2.* When you make a separate determination of the stack gas flow rate using EPA test Method 2 separately, corresponding to a pollutant reference method test, *i.e.*, when data from the pollutant reference method cannot determine the stack gas flow rate, you must report the Source ID (*i.e.*, Data Element 18.1) and following run-level data elements for each EPA test Method 2 test run:

- 28.1 Test Number;
- 28.2 EPA Test Method;
- 28.3 Run Number;
- 28.4 Number of Traverse Points;
- 28.5 Run Begin Date;
- 28.6 Run Start Time (clock time start);
- 28.7 Run End Date;
- 28.8 Run End Time (clock time end);
- 28.9 Pitot Tube ID;
- 28.10 Pitot Tube Calibration Coefficient;
- 28.11 Barometric Pressure;

- 28.12 Static Pressure;
- 28.13 Percent O₂;
- 28.14 Percent CO₂;
- 28.15 Percent Moisture - actual;
- 28.16 Dry Molecular Weight of Stack Gas;
- 28.17 Wet Molecular Weight of Stack Gas;
- 28.18 Stack Gas Velocity - fps; and
- 28.19 Stack Gas Flow Rate – dscfm.

29.0 *Point-Level Data Elements for EPA test Method 2.* For each run of each separate EPA test Method 2 test, you must report the Source ID (*i.e.*, Data Element 18.1), EPA Test Method (Data Element 28.2), Run Number (Data Element 28.3), and Run Begin Date (Data Element 28.5) and the following point-level data elements:

- 29.1 Traverse Point ID;
- 29.2 Stack Temperature; and
- 29.3 Differential Pressure Reading (ΔP).

30.0 *Run-Level Data Elements for EPA test Method 4.* When you make a separate EPA test Method 4 determination of the stack gas moisture content corresponding to a pollutant reference method test, *i.e.*, when data from the pollutant reference method cannot determine the moisture content, you must report the Source ID (*i.e.*, Data Element 18.1) and the following run-level data elements for each EPA test Method 4 test run:

- 30.1 Test Number;
- 30.2 EPA Test Method;
- 30.3 Run Number;

- 30.4 Number of Traverse Points;
- 30.5 Run Begin Date;
- 30.6 Run Start Time (clock time start);
- 30.7 Run End Date;
- 30.8 Run End Time (clock time end);
- 30.9 Barometric Pressure;
- 30.10 Calibration Coefficient of Dry Gas Meter (Y);
- 30.11 Volume of Water Collected in Impingers and Silica Gel;
- 30.12 Percent Moisture-actual;
- 30.13 Initial Reading of Dry Gas Meter Volume (dcf);
- 30.14 Final Reading of Dry Gas Meter Volume (dcf); and
- 30.15 Dry Gas Meter Temperature (average).

31.0 *Other Information for Each Test or Test Series.* You must provide each test included in the XML data file described in this appendix with supporting documentation, in a PDF file submitted concurrently with the XML file, such that all the data required to be reported by 40 CFR 63.7(g) are provided. That supporting data include but are not limited to diagrams showing the location of the test site and the sampling points, laboratory report(s) including analytical calibrations, calibrations of source sampling equipment, calibration gas cylinder certificates, raw instrumental data, field data sheets, quality assurance data (*e.g.* field recovery spikes) and any required audit results and stack testers' credentials (if applicable). The applicable data elements in 40 CFR 63.10031(f)(6)(i) through (xii) of this section must be entered into ECMPS with each PDF submittal; the test number(s) (see 40 CFR 63.10031(f)(6)(xi)) must be included. The test number(s) must match the test number(s) in sections 19 through 31 of this appendix (as

applicable).

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