

The EPA Administrator, Gina McCarthy, signed the following notice on 7/1/2015, and EPA is submitting it for publication in the *Federal Register* (FR). While we have taken steps to ensure the accuracy of this Internet version of the rule, it is not the official version of the rule for purposes of compliance. Please refer to the official version in a forthcoming FR publication, which will appear on the Government Printing Office's FDSys website (<http://gpo.gov/fdsys/search/home.action>) and on Regulations.gov (<http://www.regulations.gov>) in Docket No. EPA-HQ-OAR-2011-0817. Once the official version of this document is published in the FR, this version will be removed from the Internet and replaced with a link to the official version.

6560-50-P

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 60 and 63**

**[EPA-HQ-OAR-2011-0817; FRL-9927-62-OAR]**

**RIN 2060-AQ93**

**National Emission Standards for Hazardous Air Pollutants for the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plants**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final Amendments.

**SUMMARY:** This action finalizes amendments to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plants. On February 12, 2013, the Environmental Protection Agency (EPA) finalized amendments to the NESHAP and the new source performance standards (NSPS) for the Portland cement industry. Subsequently, the EPA became aware of certain minor technical errors in those amendments, and thus issued a proposal to correct these errors on November 19, 2014 (79 FR 68821). The EPA received 3 comments on the proposal. In response to the comments received and to complete technical corrections, the EPA is now issuing final amendments. In addition, consistent with the U.S. Court of Appeals to the

D.C. Circuit's vacatur of the affirmative defense provisions in the final rule, this action removes those provisions. These amendments do not affect the pollution reduction or costs associated with these standards.

**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-2011-0817. All documents in the docket are listed in the <http://www.regulations.gov> index. Although listed in the index, some information is not publicly available, e.g., confidential business information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy. Publicly available docket materials are available either electronically through <http://www.regulations.gov> or in hard copy at the EPA's Docket Center, Public Reading Room, EPA WJC West Building, Room Number 3334, 1301 Constitution Avenue, NW, Washington, DC 20004. This docket facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Air Docket is

(202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** Ms. Sharon Nizich, Sector Policies and Programs Division (D243-04), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number: (919) 541-2825; facsimile number: (919) 541-5450; email address: nizich.sharon@epa.gov. For information about the applicability of the NESHAP or NSPS, contact Mr. Patrick Yellin, Monitoring, Assistance and Media Programs Division (2227A), Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, Washington, DC 20460; telephone number (202) 564-2970; email address yellin.patrick@epa.gov.

**SUPPLEMENTARY INFORMATION:** Organization of This Document. The information presented in this preamble is organized as follows:

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## **I. Preamble Acronyms and Abbreviations**

Several acronyms and terms are included in this preamble.

While this may not be an exhaustive list, to ease the reading of this preamble and for reference purposes, the following terms and acronyms are defined here:

APCD	air pollution control devices
CAA	Clean Air Act
CEMS	continuous emission monitoring systems
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
FR	Federal Register
Hg	mercury
HCl	hydrogen chloride
NAICS	North American Industry Classification System

NESHAP	National Emissions Standards for Hazardous Air Pollutants
NSPS	new source performance standards
NTTAA	National Technology Transfer and Advancement Act
oHAP	Non-dioxin organic hazardous air pollutants
OMB	Office of Management and Budget
PM	particulate matter
ppm(v) (d,w)	parts per million (by volume) (dry,wet)
SO <sub>2</sub>	Sulfur Dioxide
THC	total hydrocarbons
TTN	Technology Transfer Network
UMRA	Unfunded Mandates Reform Act
WWW	World Wide Web

## II. General Information

### A. Executive Summary

#### 1. Purpose of this Regulatory Action

The purpose of this action is to finalize amendments to the 40 CFR part 60, and part 63, subparts F and LLL, respectively. In 2010, the EPA established the NESHAP for the Portland Cement source category. (75 FR 54970, September 9, 2010). Specifically, the EPA established emission standards for mercury (Hg), hydrogen chloride (HCl), total hydrocarbons (THC) (or in the alternative, organic hazardous air pollutants (oHAP)), and particulate matter (PM). These standards, established pursuant to section 112(d) of the Clean Air Act (CAA), reflected performance of maximum available control technology. Following court remand, Portland Cement Ass'n v. EPA, 665 F. 3d 177 (D.C. Cir. 2011), the EPA amended some of these standards in 2013, and

established a new compliance date of September 9, 2015, for the amended standards. (78 FR 10006, Feb. 12, 2013). All of these actions were upheld by the U.S. Court of Appeals for the District of Columbia Circuit. Natural Resources Defense Council v. EPA, 749 F. 3d 1055 (D.C. Cir. 2014). The Court, however, vacated a provision of the rule establishing an affirmative defense when violations of the standards occurred because of malfunctions. 749 F. 3d at 1063-64. In light of the Court's vacatur, the regulatory provisions establishing the affirmative defense are null and void. Thus, the EPA is removing the affirmative defense regulatory text (40 CFR 63.1344) as part of this final technical corrections rule.

The EPA also adopted standards of performance for new Portland cement sources as part of the same regulatory action establishing the 2010 NESHAP. (75 FR 54970, Sept. 9, 2010) and amended those standards at the same time of the NESHAP amendments (see 78 FR 10006) (see also Portland Cement Ass'n v. EPA, 665 F. 3d at 190-92 (upholding these standards)). The EPA is finalizing certain technical changes to these NSPS as part of this action.

B. Does this reconsideration action apply to me?

Categories and entities potentially regulated by this final rule include:

**TABLE 1. INDUSTRIAL SOURCE CATEGORIES AFFECTED BY THIS NESHAP AND NSPS FINAL ACTION**

<b>Category</b>	<b>NAICS code<sup>a</sup></b>	<b>Examples of regulated entities</b>
Industry...	327310	Portland cement manufacturing plants.
Federal government...		Not affected.
State/local/tribal government...		Portland cement manufacturing plants.

<sup>a</sup> North American Industry Classification System.

Table 1 of this preamble is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility will be regulated by this action, you should examine the applicability criteria in 40 CFR 60.60 (subpart F) or in 40 CFR 63.1340 (subpart LLL). If you have any questions regarding the applicability of this final action to a particular entity, contact the appropriate person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

C. 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 action is available on the Internet through the EPA's Technology Transfer Network (TTN) Web site, a forum for

information and technology exchange in various areas of air pollution control. Following signature by the EPA Administrator, the EPA will post a copy of this final action at <http://www.epa.gov/airquality/cement>. Following publication in the **Federal Register**, the EPA will post the **Federal Register** version of the proposal and key technical documents at this same Web site.

#### D. Judicial Review

Under section 307(b)(1) of the CAA, judicial review of this final action is available only by filing a petition for review in the court by **[insert date 60 days from date of publication in the Federal Register]**. Under section 307(b)(2) of the CAA, the requirements established by the 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 “[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review.” This section also provides a mechanism for the EPA to convene a proceeding for reconsideration, “[i]f the person raising an objection can demonstrate to the EPA that it was

impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule." Any person seeking to make such a demonstration should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, WJC Building, 1200 Pennsylvania Ave., NW, Mail Code 1101A, 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), U.S. EPA, 1200 Pennsylvania Ave., NW, Mail Code 2344A, Washington, DC 20460.

### **III. Summary of Final Amendments**

#### **A. Corrections and Clarifications**

The EPA is finalizing certain clarifying changes and corrections to the 2013 final rule. Specifically, these amendments will: (1) Clarify the definition of rolling average, operating day and run average; (2) restore the table of emission limits which apply until the September 9, 2015, compliance date; (3) correct equation 8 regarding sources with an alkali bypass or inline coal mill that include a separate stack; (4) provide a

scaling alternative for sources that have a wet scrubber, tray tower or dry scrubber relative to the HCl compliance demonstration; (5) add a temperature parameter to the startup and shutdown requirements; (6) clarify language related to span values for both Hg and HCl measurements; and (7) correct inadvertent typographical errors. The EPA is also finalizing corrections to certain inadvertent inconsistencies in the final rule regulatory text, such as correction of the compliance date for new sources and correction to the compliance date regarding monitoring and recordkeeping requirements.

In both the NSPS and the NESHAP, we are finalizing language to clarify the existing definitions of Operating Day, Rolling Average and Run Average to promote consistent and clear monitoring data recording and emissions reporting. The clarifications below are in response to industry questions and are not intended to change the meaning of the final rule. In the final amendments, we clarify that "Operating Day" is any 24-hour period where clinker is produced. This clarification is necessary to specify that during any day with both operations and emissions, an emissions value or an average of emissions values representing those operations is included in the 30-day rolling average calculation. We also clarify that "Rolling

Average” means a weighted average of all monitoring data collected during a specified time period divided by all production of clinker during those same hours of operation, and, where applicable, a 30-day rolling average is comprised of the average of all the hourly average concentrations over the previous 30 operating days. This clarification is necessary to specify the way a long-term rolling average value is calculated such that different facilities are not using different approaches to demonstrate compliance with the rule. In addition, we clarify that “Run Average” means the average of the recorded parameter values, not the 1-minute parameter values, for a run.

We are amending 40 CFR 63.1349(b) (8) (vii) to include a provision describing performance testing requirements when a source demonstrates compliance with the emissions standard using a continuous emissions monitoring system (CEMS) for sulfur dioxide (SO<sub>2</sub>) measurement and reporting.

We are adding a scaling alternative whereby if a source uses a wet scrubber, tray tower or dry scrubber, and where the test run average of the three HCl compliance tests demonstrates compliance below 2.25 parts per million by volume (ppmv) (which is 75 percent of the HCl emission limit), the source may calculate an operating limit by establishing a relationship of

the average SO<sub>2</sub> CEMS signal to the HCl concentration (corrected to 7 percent oxygen). The operating limit would be established at a point where the SO<sub>2</sub> CEMS indicates the source would be at 2.25 ppmv. Since the 2.25 ppmv is below the actual limit of 3.0 ppmv, the source will continue to demonstrate compliance with the HCl standard. Given the fact that SO<sub>2</sub> controls preferentially remove HCl, an increase in SO<sub>2</sub> emissions would not indicate an increase in HCl emissions as long as some SO<sub>2</sub> emissions reductions are occurring. Adding this compliance flexibility should not result in any increase in HCl emissions.

We are also amending, under 40 CFR 63.1346(g) (3), language related to the use of air pollution control devices (APCD). We had proposed that all hazardous APCD be operating by the time the temperature to the APCD reaches 300°F. However, during the comment period, the EPA received further clarification on the temperature parameter. Commenters noted that the temperature threshold during startup need only apply to injection systems and not all APCD, and that the temperature reading should occur at the PM control device inlet. Commenters also noted that as soon as fuel is shut off during shutdown, gas flows can decrease to the point where activated carbon and hydrated lime being injected can fall out of the stream and accumulate in the duct

work due to reduced gas flows. In addition, lime affected by water vapor condensation present during startup and shutdown conditions will cause the lime to harden and reduce the efficiency for dust removal.<sup>1</sup> Because of the injection system operating restrictions with startup and shutdown, revision of the startup and shutdown work practice is amended in the final rule to clarify that the injection system may be shut off when kiln feed is shut off. In addition to this revision regarding injection systems, clarification that all control devices for HAP must be operating during startup and shutdown has been included in the regulatory text.

We are also finalizing measurement span criteria for HCl CEMS to include better quality assurance/quality control (QA/QC) for measurements of elevated HCl emissions that may result from "mill off" operations. This slight increase in measurement span (from 5 parts per million (ppm) to 10 ppm) provides for an improved balance between accurately quantifying measurements at low emissions levels (the majority of operating time) and improving QA/QC for brief periods of elevated emissions observed

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<sup>1</sup>These issues are further discussed in the docket, via communication with John Holmes dated September 24, 2014.

during "mill off" operation (the majority of HCl mass emissions).

In these final amendments, we remove 40 CFR 60.64(c)(2), which applied when sources did not have valid 15-minute CEMS data. This provision allowed for inclusion of the average emission rate from the previous hour for which data were available. This provision was inadvertently added to the final rule, but this substitution is not an allowable action.

We are also revising 40 CFR 63.1350(o) (Alternative Monitoring Requirements Approval), because language in this section, which does not allow an operator to apply for alternative THC monitoring, is now obsolete. There is now alternative monitoring allowed in 40 CFR 63.1350(j) due to the 2013 final rule (see 78 FR 10015). A source that emits a high amount of THC due to methane emissions, for example, can follow the alternative oHAP monitoring requirements. For any other reason that an alternative THC monitoring protocol is warranted, we allow the source to submit an application to the Administrator subject to the provisions of 40 CFR 63.1350(o)(1) through (6).

#### B. Affirmative Defense

The EPA is removing a regulatory affirmative defense provision from the rule. As explained above, removal of the affirmative defense merely corrects the regulation to reflect that the provisions have no legal effect in light of the court vacatur of the affirmative defense provisions in the Portland Cement NESHAP rule. NRDC v. EPA, 749 F. 3d at 1063-64 (D.C. Cir. 2014).

#### **IV. Summary of Changes since Proposal**

Section III summarized the amendments to the 2013 NSPS and NESHAP rules that the EPA is finalizing in this rule. Due to public comments, minor changes to the proposed regulatory text have been included in the final rule. These minor changes are discussed in the response to comment document that can be found in the docket. We believe that these minor changes sufficiently address concerns expressed by commenters and improve the clarity of the rule while improving or preserving public health and environmental protection required under the CAA.

#### **V. Summary of Comments and Responses**

We proposed amendments to the 2013 NSPS and NESHAP rules on November 19, 2014 (see 79 FR 68821). We received 3 comment letters, and consequently made some additional corrections in response to these comments. Comments and responses on these

amendments are summarized in the response to comments document found in the docket. There were no significant comments received on the proposed technical amendments. A list of typographical errors we proposed to correct, and are now finalizing, can be found in the proposed rule at 79 FR 68824. For clarity, we are including a table of additional typographical corrections found by the commenters on the proposed rule.

**TABLE 2. MISCELLANEOUS FINAL TECHNICAL CORRECTIONS TO 40 CFR PART 63, SUBPART LLL**

Section of Subpart LLL	Description of correction
40 CFR 63.1347(a) (1)	Referred rule numbers have been changed from Section 63.1343 through 63.1348, to Sections 63.1343, 1345 and 1346.
40 CFR 63.1349(b) (1) (iii)	Reference to procedures in (a) (1) (iii) (A) through (D) is changed to (b)1(iii) (A) through (D).
40 CFR 63.1349(b) (1) (iii) (A) (4)	Reference in this section is changed from (a) (1) (iii) (A) (1) through (3) to (b) (1) (iii) (A) (1) through (3).
40 CFR 63.1349(b) (3) (iv)	Reference in this section is changed from 63.1344(b) to 63.1346(b).
40 CFR 63.1349(b) (7) (ii)	Reference in this section is changed from (a) (7) (vii) and (viii) to (b) (7) (viii) through (ix).
40 CFR 63.1349(b) (7) (vii)	Reference in this section is changed from (a) (7) (vii) and (viii) to (b) (7) (viii) through (ix).
40 CFR 63.1349(b) (7) (viii)	Reference in this section is changed from (a) (7) (vii) (A)

	and (B) to (b) (7) (viii) (A) and (B).
Equation 13	The variable Y listed in units of ppmv is changed to ppmvd.
Equation 14	Variable Y <sub>1</sub> is listed but is not in equation and has been removed.
40 CFR 63.1349(b) (8) (viii)	Reference to Equation 18 has been changed to reference to Equation 21.
40 CFR 63.1349(c)	A range for performance testing from 29-31 months for 30 month tests and 11-13 months for annual tests has been added.
40 CFR 63.1350(k) and (l)	Clarifications on calibration and span checks have been added. Reference to Performance Specification 18 added.
40 CFR 63.1350(n) (4)	Reference in this section is changed from (n) (1) to (n) (2).
40 CFR 63.1355(d)	A requirement to keep annual records of cement kiln dust is obsolete due to the 2013 final amendment requirements of continuous monitoring, so this provision has been removed.
Table 1 to Subpart LLL of Part 63-Applicability of General Provisions	Remove reference to 63.10(e) (3) (vii) and (viii) since they were superseded by 63.1354(b) (10).

The EPA is also finalizing corrections and clarifications to the 2013 NESHAP and NSPS rules, including typographical and grammatical errors, as well as incorrect dates and cross-references. Details of the specific changes we are finalizing to

the regulatory text may be found above in the table of corrections, and also in the response to comment document found in the docket for this action.

## **VI. Impacts of These Final Amendments**

The EPA has determined that owners and operators of affected facilities would choose to install and operate the same or similar air pollution control technologies under this action as they would have installed to comply with the previously finalized standards. We project that these amendments will result in no significant change in costs, emission reductions or benefits. Even if there were changes in costs for the affected facilities, such changes would likely be small relative to both the overall costs of the individual projects and the overall costs and benefits of the final rule. Since we believe that owners and operators would put on the same controls for this revised final rule that they would have for the 2013 rule, there should not be any incremental costs related to this final rule.

### A. What are the air impacts?

We believe that owners and operators of affected facilities will not revise their control technology implementation plans as a result of these final technical corrections. Accordingly, we believe that this final rule will not result in significant

changes in emissions of any regulated pollutants.

B. What are the energy impacts?

This final rule is not anticipated to have an effect on the supply, distribution or use of energy. As previously stated, we believe that owners and operators of affected facilities would install the same or similar control technologies as they would have installed to comply with the previously finalized standards.

C. What are the compliance costs?

We believe there will be no significant change in compliance costs as a result of this final rule because owners and operators of affected facilities would install the same or similar control technologies as they would have installed to comply with the previously finalized standards.

D. What are the economic and employment impacts?

Because we expect that owners and operators of affected facilities would install the same or similar control technologies under this action as they would have installed to comply with the previously finalized standards, we do not anticipate that this final rule will result in significant changes in emissions, energy impacts, costs, benefits or economic impacts. Likewise, we believe this rule will not have

any impacts on the price of electricity, employment or labor markets, or the U.S. economy.

E. What are the benefits of the final standards?

As previously stated, the EPA anticipates the Portland cement industry will not incur significant compliance costs or savings as a result of this action and we do not anticipate any significant emission changes resulting from these amendments to the rule. Therefore, there are no direct monetized benefits or disbenefits associated with this final rule.

**VII. Statutory and Executive Order Reviews**

Additional information about these statutes and Executive Orders can be found at <http://www2.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. Paperwork Reduction Act (PRA)

This action does not impose any new information collection burden under the PRA. The OMB has previously approved the

information collection activities contained in the existing regulations and has assigned OMB control number 2060-0416 for the NESHAP; there are no additional recordkeeping and reporting requirements for the NSPS. This action does not change the information collection requirements previously finalized and, as a result, does not impose any additional information collection burden on industry. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9.

C. 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. The EPA has determined that none of the small entities subject to this rule will experience a significant impact because this action imposes no additional compliance costs on owners or operators of affected sources. We have therefore concluded that this action will have no net regulatory burden

for all directly regulated small entities.

D. Unfunded Mandates Reform Act of 1995 (UMRA)

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531-1538, and does not significantly or uniquely affect small governments. This action imposes no enforceable duty on any state, local or tribal governments or the private sector.

E. 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.

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

This action does not have tribal implications as specified in Executive Order 13175. It will not have substantial direct effect on tribal governments, on the relationship between the federal government and Indian tribes or on the distribution of power and responsibilities between the federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to this action.

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

This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children.

This action does not add to or relieve affected sources from any requirements, and therefore has no impacts; thus, health and risk assessments were not conducted.

H. 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.

I. National Technology Transfer and Advancement Act (NTTAA)

This rulemaking does not involve technical standards.

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

The EPA believes the human health or environmental risk addressed by this action will not have potential

disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations because it does not affect the level of protection provided to human health or the environment. The basis for this determination is that this action is a reconsideration of existing requirements and imposes no new impacts or costs.

K. 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).

**National Emission Standards for Hazardous Air Pollutants for the  
Portland Cement Manufacturing Industry and Standards of  
Performance for Portland Cement Plants  
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**List of Subjects**

40 CFR Part 60

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

40 CFR Part 63

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

Dated: \_\_\_\_\_.

\_\_\_\_\_  
Gina McCarthy,  
Administrator.

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

**PART 60 - STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES**

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

**Authority:** 42 U.S.C. 7411.

**Subpart F--[Amended]**

2. Section 60.61 is amended by revising paragraph (f) and adding paragraphs (g) and (h).

The revision and addition read as follows:

**§60.61 Definitions.**

\* \* \* \* \*

(f) *Operating day* means a 24-hour period beginning at 12:00 midnight during which the kiln produces clinker at any time. For calculating 30 day rolling average emissions, an *operating day* does not include the hours of operation during startup or shutdown.

(g) *Rolling average* means the weighted average of all data, meeting QA/QC requirements or otherwise normalized, collected during the applicable averaging period. The period of a rolling average stipulates the frequency of data averaging and reporting. To demonstrate compliance with an operating parameter a 30-day rolling average period requires calculation of a new average value each operating day and shall include the average

of all the hourly averages of the specific operating parameter. For demonstration of compliance with an emissions limit based on pollutant concentration, a 30-day rolling average is comprised of the average of all the hourly average concentrations over the previous 30 operating days. For demonstration of compliance with an emissions limit based on lbs-pollutant per production unit, the 30-day rolling average is calculated by summing the hourly mass emissions over the previous 30 operating days, then dividing that sum by the total production during the same period.

(h) *Run average* means the average of the recorded parameter values for a run.

3. Section 60.62 is amended by:

a. Adding paragraphs (a) (1) (i), (2), (b) (1) (iii), (iv), (d) and (e).

b. Revising paragraph (d).

The additions and revision read as follows:

**§60.62 Standards.**

(a) \* \* \*

(1) Contain particulate matter (PM) in excess of:

(i) 0.30 pounds per ton of feed (dry basis) to the kiln for kilns constructed, reconstructed, or modified after August 17, 1971 but on or before June 16, 2008.

\* \* \* \* \*

(2) Exhibit greater than 20 percent opacity for kilns constructed, reconstructed, or modified after August 17, 1971 but on or before June 16, 2008, except that this opacity limit does not apply to any kiln subject to a PM limit in paragraph (a)(1) of this section that uses a PM continuous parametric monitoring system (CPMS).

\* \* \* \* \*

(b) \* \* \*

(1) \* \* \*

(iii) 0.10 lb per ton of feed (dry basis) for clinker coolers constructed, reconstructed, or modified after August 17, 1971, but on or before June 16, 2008.

(iv) 10 percent opacity for clinker coolers constructed, reconstructed, or modified after August 17, 1971, but on or before June 16, 2008, except that this opacity limit does not apply to any clinker cooler subject to a PM limit in paragraph (b)(1) of this section that uses a PM continuous parametric monitoring system (CPMS).

\* \* \* \* \*

(d) If you have an affected source subject to this subpart with a different emissions limit or requirement for the same pollutant under another regulation in title 40 of this chapter, once you are in compliance with the most stringent emissions limit or requirement, you are not subject to the less stringent

requirement. Until you are in compliance with the more stringent limit, the less stringent limit continues to apply.

(e) The compliance date for all revised monitoring and recordkeeping requirements contained in this rule will be the same as listed in 63.1351(c) unless you commenced construction as of June 16, 2008, at which time the compliance date is November 8, 2010 or upon startup, whichever is later.

4. Section 60.63 is amended by revising paragraphs (c)(1), (c)(2)(i), (c)(2)(iii), (c)(3), (c)(4)(ii), (c)(4)(iii), (c)(4)(iv), (c)(5), (c)(6), (c)(7) and (c)(8) to read as follows:

**§60.63 Monitoring of operations.**

\* \* \* \* \*

(c) \* \* \*

(1) For each kiln or clinker cooler subject to a PM emissions limit in §§60.62(a)1(ii) and 60.62(a)1(iii) or 60.62(b)(1)(i) and 60.62(b)(1)(ii), you must demonstrate compliance through an initial performance test. You will conduct your performance test using Method 5 or Method 5I at appendix A-3 to part 60 of this chapter. You must also monitor continuous performance through use of a PM CPMS.

(2) \* \* \*

(i) Your PM CPMS must provide a 4-20 milliamp or digital signal output and the establishment of its relationship to

manual reference method measurements must be determined in units of milliamps or the monitors digital equivalent.

(ii) \* \* \*

(iii) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp or digital output values from the PM CPMS for the periods corresponding to the compliance test runs (e.g., average all your PM CPMS output values for three corresponding 2-hour Method 5I test runs).

(3) Determine your operating limit as specified in paragraphs (c) (4) (i) through (c) (5) of this section. If your PM performance test demonstrates your PM emission levels to be below 75 percent of your emission limit, you will use the average PM CPMS value recorded during the PM compliance test, the milliamp or digital equivalent of zero output from your PM CPMS, and the average PM result of your compliance test to establish your operating limit. If your PM compliance test demonstrates your PM emission levels to be at or above 75 percent of your emission limit, you will use the average PM CPMS value recorded during the PM compliance test to establish your operating limit. You must verify an existing or establish a new operating limit after each repeated performance test. You must repeat the performance test at least annually and reassess and

adjust the site-specific operating limit in accordance with the results of the performance test.

(4) \* \* \*

(ii) Determine your PM CPMS instrument average in milliamps or digital equivalent and the average of your corresponding three PM compliance test runs, using equation 1.

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n X_i, \bar{y} = \frac{1}{n} \sum_{i=1}^n Y_i \quad (\text{Eq. 1})$$

Where

$X_1$  = The PM CPMS data points for the three runs constituting the performance test,

$Y_1$  = The PM concentration value for the three runs constituting the performance test, and

$n$  = The number of data points.

(iii) With your PM CPMS instrument zero expressed in milliamps or a digital value, your three run average PM CPMS milliamp or digital signal value, and your three run average PM concentration from your three PM performance test runs, determine a relationship of lb/ton-clinker per milliamp or digital signal with equation 2.

$$R = \frac{Y_1}{(X_1 - z)} \quad (\text{Eq. 2})$$

Where:

$R$  = The relative lb/ton clinker per milliamp or digital equivalent for your PM CPMS.

$Y_1$  = The three run average PM lb/ton clinker.

$X_1$  = The three run average milliamp or digital signal output from your PM CPMS.

$z$  = The milliamp or digital equivalent of your instrument zero determined from (c) (4) (i) of this section.

(iv) Determine your source specific 30-day rolling average operating limit using the lb/ton-clinker per milliamp or digital signal value from Equation 2 above in Equation 3, below. This sets your operating limit at the PM CPMS output value corresponding to 75 percent of your emission limit.

$$O_1 = z + (0.75(L)) / R \quad (\text{Eq. 3})$$

Where:

$O_1$  = The operating limit for your PM CPMS on a 30-day rolling average, in milliamps or the digital equivalent.

$L$  = Your source emission limit expressed in lb/ton clinker.

$z$  = Your instrument zero in milliamps or a digital equivalent, determined from (1) (i).

$R$  = The relative lb/ton-clinker per milliamp or digital equivalent, for your PM CPMS, from Equation 2.

(5) If the average of your three PM compliance test runs is at or above 75 percent of your PM emission limit, you must determine your operating limit by averaging the PM CPMS milliamp or digital equivalent output corresponding to your three PM

performance test runs that demonstrate compliance with the emission limit using Equation 4.

$$O_h = \frac{1}{n} \sum_{i=1}^n X_i \quad (\text{Eq. 4})$$

Where:

$X_i$  = The PM CPMS data points for all runs  $i$ .

$n$  = The number of data points.

$O_h$  = Your site specific operating limit, in milliamps or digital equivalent.

(6) To determine continuous compliance, you must record the PM CPMS output data for all periods when the process is operating, and use all the PM CPMS data for calculations when the source is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps or the digital equivalent) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. Use Equation 5 to determine the 30 kiln operating day average.

$$30\text{kiln operating day average} = \frac{\sum_{i=1}^n Hpvi}{n} \quad (\text{Eq. 5})$$

Where:

$Hpvi$  = The hourly parameter value for hour  $i$ .

n = The number of valid hourly parameter values collected over the previous 30 kiln operating days.

(7) Use EPA Method 5 or Method 5I of appendix A to part 60 of this chapter to determine PM emissions. For each performance test, conduct at least three separate runs each while the mill is on and the mill is off under the conditions that exist when the affected source is operating at the level reasonably expected to occur. Conduct each test run to collect a minimum sample volume of 2 dscm for determining compliance with a new source limit and 1 dscm for determining compliance with an existing source limit. Calculate the time weighted average of the results from three consecutive runs to determine compliance. You need not determine the particulate matter collected in the impingers ("back half") of the Method 5 or Method 5I particulate sampling train to demonstrate compliance with the PM standards of this subpart. This shall not preclude the permitting authority from requiring a determination of the "back half" for other purposes.

(8) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp or digital signal value

equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp or digital equivalent signals corresponding to each PM compliance test run.

\* \* \* \* \*

5. Section 60.64 is amended by revising paragraph (c) and removing and reserving paragraph (c) (2) to read as follows:

**§60.64 Test methods and procedures.**

\* \* \* \* \*

(c) Calculate and record the rolling 30 kiln operating day average emission rate daily of NO<sub>x</sub> and SO<sub>2</sub> according to the procedures in paragraph (c) (1) of this section.

\* \* \* \* \*

(2) [Reserved]

\* \* \* \* \*

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

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

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

**Subpart LLL—[Amended]**

7. Section 63.1341 is amended by revising the definitions for "Operating day", "Rolling average", and "Run average" to read as follows:

**§63.1341 Definitions.**

\* \* \* \* \*

*Operating day* means any 24-hour period beginning at 12:00 midnight during which the kiln produces any amount of clinker. For calculating the 30-day rolling average emissions, kiln operating days do not include the hours of operation during startup or shutdown.

\* \* \* \* \*

*Rolling average* means the weighted average of all data, meeting QA/QC requirements or otherwise normalized, collected during the applicable averaging period. The period of a rolling average stipulates the frequency of data averaging and reporting. To demonstrate compliance with an operating parameter a 30-day rolling average period requires calculation of a new average value each operating day and shall include the average of all the hourly averages of the specific operating parameter. For demonstration of compliance with an emissions limit based on pollutant concentration a 30-day rolling average is comprised of the average of all the hourly average concentrations over the previous 30 operating days. For demonstration of compliance with an emissions limit based on lbs-pollutant per production unit the 30-day rolling average is calculated by summing the hourly mass emissions over the previous 30 operating days, then

dividing that sum by the total production during the same period.

*Run average* means the average of the recorded parameter values for a run.

\* \* \* \* \*

8. Section 63.1343 is amended by revising paragraphs (a), (b) (1), Table 1 in paragraph (b) (1), (b) (2), and (d), and adding Table 2 to read as follows:

**§63.1343 What standards apply to my kilns, clinker coolers, raw material dryers, and open clinker storage piles?**

(a) *General*. The provisions in this section apply to each kiln and any alkali bypass associated with that kiln, clinker cooler, raw material dryer, and open clinker storage pile. All D/F, HCl, and total hydrocarbon (THC) emissions limit are on a dry basis. The D/F, HCl, and THC limits for kilns are corrected to 7 percent oxygen. All THC emissions limits are measured as propane. Standards for mercury and THC are based on a rolling 30-day average. If using a CEMS to determine compliance with the HCl standard, this standard is based on a rolling 30-day average. You must ensure appropriate corrections for moisture are made when measuring flow rates used to calculate mercury emissions. The 30-day period means all operating hours within 30 consecutive kiln operating days excluding periods of startup and shutdown. All emissions limits for kilns, clinker coolers, and

raw material dryers currently in effect that are superseded by the limits below continue to apply until the compliance date of the limits below, or until the source certifies compliance with the limits below, whichever is earlier.

(b) *Kilns, clinker coolers, raw material dryers, raw mills, and finish mills.* (1) The emissions limits for these sources are shown in Table 1 below.

**TABLE 1—EMISSIONS LIMITS FOR KILNS, CLINKER COOLERS, RAW MATERIAL DRYERS, RAW AND FINISH MILLS**

	<b>If your source is a (an):</b>	<b>And the operating mode is:</b>	<b>And if is located at a:</b>	<b>Your emissions limits are:</b>	<b>And the units of the emissions limit are:</b>	<b>The oxygen correction factor is:</b>
1.	Existing kiln	Normal operation	Major or area source	PM <sup>10</sup> 0.07 D/F <sup>20</sup> 0.2 Mercury 55 THC <sup>3</sup> 424	lb/ton clinker ng/dscm (TEQ) lb/MM tons clinker ppmvd	NA. 7 percent. NA. 7 percent.
2.	Existing kiln	Normal operation	Major source	HCl 3	ppmvd	7 percent.
3.	Existing kiln	Startup and shutdown	Major or area source	Work practices (63.1346(g))	NA	NA.
4.	New kiln	Normal operation	Major or area source	PM <sup>1</sup> 0.02 D/F <sup>20</sup> 0.2 Mercury 21 THC <sup>3</sup> 424	lb/ton clinker ng/dscm (TEQ) lb/MM tons clinker ppmvd	NA. 7 percent. NA 7 percent.

5.	New kiln	Normal operation	Major source	HCl 3	ppmvd	7 percent.
6.	New kiln	Startup and shutdown	Major or area source	Work practices (63.1346(g))	NA	NA.
7.	Existing clinker cooler	Normal operation	Major or area source	PM 0.07	lb/ton clinker	NA.
8.	Existing clinker cooler	Startup and shutdown	Major or area source	Work practices (63.1348(b)(9))	NA	NA.
9.	New clinker cooler	Normal operation	Major or area source	PM 0.02	lb/ton clinker	NA.
10.	New clinker cooler	Startup and shutdown	Major or area source	Work practices (63.1348(b)(9))	NA	NA.
11.	Existing or new raw material dryer	Normal operation	Major or area source	THC <sup>3</sup> 424	ppmvd	NA.
12.	Existing or new raw material dryer	Startup and shutdown	Major or area source	Work practices (63.1348(b)(9))	NA	NA.
13.	Existing or new raw or finish mill	All operating modes	Major source	Opacity 10	percent	NA.

<sup>1</sup> The initial and subsequent PM performance tests are performed using Method 5 or 5I and consist of three test runs.

<sup>2</sup> If the average temperature at the inlet to the first PM control device (fabric filter or electrostatic precipitator) during the D/F performance test is 400 °F or less, this limit is changed to 0.40 ng/dscm (TEQ).

<sup>3</sup> Measured as propane.

<sup>4</sup> Any source subject to the 24 ppmvd THC limit may elect to meet an alternative limit of 12 ppmvd for total organic HAP.

(2) When there is an alkali bypass and/or an inline coal mill with a separate stack associated with a kiln, the combined PM emissions from the kiln and the alkali bypass stack and/or the inline coal mill stack are subject to the PM emissions limit. Existing kilns that combine the clinker cooler exhaust and/or alkali bypass and/or coal mill exhaust with the kiln exhaust and send the combined exhaust to the PM control device as a single stream may meet an alternative PM emissions limit. This limit is calculated using Equation 1 of this section:

$$PM_{alt} = (0.0060 \times 1.65) (Q_k + Q_c + Q_{ab} + Q_{cm}) / (7000) \quad (\text{Eq. 1})$$

Where:

$PM_{alt}$  = Alternative PM emission limit for commingled sources.

0.006 = The PM exhaust concentration (gr/dscf) equivalent to 0.070 lb per ton clinker where clinker cooler and kiln exhaust gas are not combined.

1.65 = The conversion factor of ton feed per ton clinker.

$Q_k$  = The exhaust flow of the kiln (dscf/ton feed).

$Q_c$  = The exhaust flow of the clinker cooler (dscf/ton feed).

$Q_{ab}$  = The exhaust flow of the alkali bypass (dscf/ton feed).

$Q_{cm}$  = The exhaust flow of the coal mill (dscf/ton feed).

7000 = The conversion factor for grains (gr) per lb.

For new kilns that combine kiln exhaust, clinker cooler gas and/or coal mill and alkali bypass exhaust, the limit is calculated using Equation 2 of this section:

$$PM_{alt} = (0.0020 \times 1.65) (Q_k + Q_c + Q_{ab} + Q_{cm}) / (7000) \quad (\text{Eq. 2})$$

Where:

$PM_{alt}$  = Alternative PM emission limit for commingled sources.

0.002 = The PM exhaust concentration (gr/dscf) equivalent to 0.020 lb per ton clinker where clinker cooler and kiln exhaust gas are not combined.

1.65 = The conversion factor of ton feed per ton clinker.

$Q_k$  = The exhaust flow of the kiln (dscf/ton feed).

$Q_c$  = The exhaust flow of the clinker cooler (dscf/ton feed).

$Q_{ab}$  = The exhaust flow of the alkali bypass (dscf/ton feed).

$Q_{cm}$  = The exhaust flow of the coal mill (dscf/ton feed).

7000 = The conversion factor for gr per lb.

\* \* \* \* \*

(d) Emission limits in effect prior to September 9, 2010. Any source defined as an existing source in §63.1351, and that was subject to a PM, mercury, THC, D/F, or opacity emissions limit prior to September 9, 2010, must continue to meet the limits as shown in Table 2 below until September 9, 2015.

**TABLE 2. EMISSIONS LIMITS IN EFFECT PRIOR TO SEPTEMBER 9, 2010, FOR KILNS (ROWS 1-4), CLINKER COOLERS (ROW 5), AND RAW MATERIAL DRYERS (ROWS 6-9).**

	If your source is	and	And if it is	Your emissions	And the units of
--	-------------------	-----	--------------	----------------	------------------

			located at	limits are <sup>1</sup> :	the emissions limit are:
1.	An existing kiln	it commenced construction or reconstruction on or prior to December 2, 2005	A major source	PM - 0.3 Opacity - 20 D/F - 0.2 <sup>2</sup> THC - 50 <sup>3,4</sup>	lb/ton feed percent ng/dscm (TEQ) ppmvd
2.	An existing kiln	it commenced construction or reconstruction after December 2, 2005	A major source	PM - 0.3 Opacity - 20 D/F - 0.2 <sup>2</sup> THC - 20 <sup>3,5</sup> Mercury - 41 <sup>6</sup>	lb/ton feed percent ng/dscm (TEQ) ppmvd ug/dscm
3.	An existing kiln	it commenced construction or reconstruction on or prior to December 2, 2005	An area source	D/F - 0.2 <sup>2</sup> THC - 50 <sup>3,4</sup>	ng/dscm (TEQ) ppmvd
4.	An existing kiln	it commenced construction or reconstruction after December 2, 2005	An area source	D/F - 0.2 <sup>2</sup> THC - 20 <sup>3,5</sup> Mercury - 41 <sup>6</sup>	ng/dscm (TEQ) ppmvd ug/dscm
5.	An existing clinker cooler	NA	A major source	PM - 0.1 Opacity - 10	lb/ton feed percent
6.	An Existing raw material dryer	it commenced construction or reconstruction on or prior to December 2, 2005	A major source	THC - 50 <sup>3,4</sup> Opacity - 10	ppmvd Percent

7.	An Existing raw material dryer	it commenced construction or reconstruction after December 2, 2005	A major source	THC - 20 <sup>3,5</sup> Opacity - 10	ppmvd percent
8.	An Existing raw material dryer	it commenced construction or reconstruction on or prior to December 2, 2005	An area source	THC - 50 <sup>3,4</sup>	ppmvd
9.	An Existing raw material dryer	it commenced construction or reconstruction after December 2, 2005	An area source	THC - 20 <sup>3,5</sup>	ppmvd

<sup>1</sup> All emission limits expressed as a concentration basis (ppmvd, ng/dscm) are corrected to seven percent oxygen.

<sup>2</sup> If the average temperature at the inlet to the first particulate matter control device (fabric filter or electrostatic precipitator) during the D/F performance test is 400 °F or less, this limit is changed to 0.4 ng/dscm (TEQ).

<sup>3</sup> Measured as propane.

<sup>4</sup> Only applies to Greenfield kilns or raw material dryers.

<sup>5</sup> As an alternative, a source may demonstrate a 98 percent reduction in THC emissions from the exit of the kiln or raw material dryer to discharge to the atmosphere. Inline raw mills are considered to be an integral part of the kiln.

<sup>6</sup> As an alternative, a source may route the emissions through a packed bed or spray tower wet scrubber with a liquid-to-gas ratio of 30 gallons per 1000 actual cubic feet per minute or more and meet a site-specific emission limit based on the measured performance of the wet scrubber.

9. Section 63.1344 is removed and reserved.

**§63.1344 Reserved**

\* \* \* \* \*

10. Section 63.1346 is amended by revising paragraph

(g) (3) to read as follows:

**§63.1346 Operating limits for kilns.**

\* \* \* \* \*

(g) \* \* \*

(3) All dry sorbent and activated carbon systems that control hazardous air pollutants must be turned on and operating at the time the gas stream at the inlet to the baghouse or ESP reaches 300 degrees Fahrenheit (five minute average) during startup. Temperature of the gas stream is to be measured at the inlet of the baghouse or ESP every minute. Such injection systems can be turned off during shutdown. Particulate control and all remaining devices that control hazardous air pollutants should be operational during startup and shutdown.

\* \* \* \* \*

11. Section 63.1347 is amended by revising paragraph (a) (1) to read as follows:

**§63.1347 Operation and maintenance plan requirements.**

(a) \* \* \*

(1) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emissions limits and operating limits, including fugitive dust control measures for open clinker piles of § 63.1343, 63.1345, and 63.1346. Your operations and maintenance plan must address periods of startup and shutdown.

\* \* \* \* \*

12. Section 63.1348 is amended by revising paragraphs (a) (4) (iv), (a) (4) (v), (b) (1) (iii) and (b) (9) to read as follows:

**§63.1348 Compliance requirements.**

\* \* \* \* \*

(4) \* \* \*

(iv) The time weighted average total organic HAP concentration measured during the separate initial performance test specified by §63.1349(b) (7) must be used to determine initial compliance.

(v) The time weighted average THC concentration measured during the initial performance test specified by §63.1349(b) (4) must be used to determine the site-specific THC limit. Using the fraction of time the inline kiln/raw mill is on and the fraction of time that the inline kiln/raw mill is off, calculate this limit as a time weighted average of the THC levels measured during raw mill on and raw mill off testing using one of the two approaches in §63.1349(b) (7) (vii) or (viii) depending on the level of organic HAP measured during the compliance test.

\* \* \* \* \*

(b) \* \* \*

(1) \* \* \*

(iii) You may not use data recorded during monitoring system startup, shutdown or malfunctions or repairs associated with monitoring system malfunctions in calculations used to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

\* \* \* \* \*

(9) *Startup and Shutdown Compliance.* All dry sorbent and activated carbon systems that control hazardous air pollutants must be turned on and operating at the time the gas stream at the inlet to the baghouse or ESP reaches 300 degrees Fahrenheit (five minute average) during startup. Temperature of the gas stream is to be measured at the inlet of the baghouse or ESP every minute. Such injection systems can be turned off during shutdown. Particulate control and all remaining devices that control hazardous air pollutants should be operational during startup and shutdown.

\* \* \* \* \*

13. Section 63.1349 is amended by revising paragraphs (b), (c), and (d) (1) (ii) to read as follows:

**§63.1349 Performance testing requirements.**

\* \* \* \* \*

(b) (1) *PM emissions tests.* The owner or operator of a kiln and clinker cooler subject to limitations on PM emissions shall demonstrate initial compliance by conducting a performance test using Method 5 or Method 5I at appendix A-3 to part 60 of this chapter. You must also monitor continuous performance through use of a PM continuous parametric monitoring system (PM CPMS).

(i) For your PM CPMS, you will establish a site-specific operating limit. If your PM performance test demonstrates your PM emission levels to be below 75 percent of your emission limit you will use the average PM CPMS value recorded during the PM compliance test, the milliamp or digital equivalent of zero output from your PM CPMS, and the average PM result of your compliance test to establish your operating limit. If your PM compliance test demonstrates your PM emission levels to be at or above 75 percent of your emission limit you will use the average PM CPMS value recorded during the PM compliance test to establish your operating limit. You will use the PM CPMS to demonstrate continuous compliance with your operating limit. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

(A) Your PM CPMS must provide a 4-20 milliamp or digital signal output and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps or the monitors digital equivalent.

(B) Your PM CPMS operating range must be capable of reading PM concentrations from zero to a level equivalent to three times your allowable emission limit. If your PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading PM concentration from zero to a level equivalent to three times your allowable emission limit.

(C) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp or digital output values from the PM CPMS for the periods corresponding to the compliance test runs (e.g., average all your PM CPMS output values for three corresponding Method 5I test runs).

(ii) Determine your operating limit as specified in paragraphs (b)(1)(iii) through (iv) of this section. If your PM performance test demonstrates your PM emission levels to be below 75 percent of your emission limit you will use the average PM CPMS value recorded during the PM compliance test, the milliamp or digital equivalent of zero output from your PM CPMS, and the average PM result of your compliance test to establish

your operating limit. If your PM compliance test demonstrates your PM emission levels to be at or above 75 percent of your emission limit you will use the average PM CPMS value recorded during the PM compliance test to establish your operating limit. You must verify an existing or establish a new operating limit after each repeated performance test. You must repeat the performance test at least annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

(iii) If the average of your three Method 5 or 5I compliance test runs is below 75 percent of your PM emission limit, you must calculate an operating limit by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 or 5I compliance test with the procedures in (b) (1) (iii) (A) through (D) of this section.

(A) Determine your PM CPMS instrument zero output with one of the following procedures.

(1) Zero point data for in-situ instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.

(2) Zero point data for extractive instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air.

(3) The zero point may also be established by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (e.g., when your process is not operating, but the fans are operating or your source is combusting only natural gas) and plotting these with the compliance data to find the zero intercept.

(4) If none of the steps in paragraphs (b) (1) (iii) (A) (1) through (3) of this section are possible, you must use a zero output value provided by the manufacturer.

(B) Determine your PM CPMS instrument average in milliamps or digital equivalent, and the average of your corresponding three PM compliance test runs, using equation 3.

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n X_i, \bar{y} = \frac{1}{n} \sum_{i=1}^n Y_i \quad (\text{Eq. 3})$$

Where:

$X_1$  = The PM CPMS data points for the three runs constituting the performance test.

$Y_1$  = The PM concentration value for the three runs constituting the performance test.

$n$  = The number of data points.

(C) With your instrument zero expressed in milliamps or a digital value, your three run average PM CPMS milliamp or digital signal value, and your three run PM compliance test average, determine a relationship of lb/ton-clinker per milliamp or digital signal value with Equation 4.

$$R = \frac{Y_1}{(X_1 - z)} \quad (\text{Eq. 4})$$

Where:

R = The relative lb/ton-clinker per milliamp or digital equivalent for your PM CPMS.

$Y_1$  = The three run average lb/ton-clinker PM concentration.

$X_1$  = The three run average milliamp or digital equivalent output from your PM CPMS.

z = The milliamp or digital equivalent of your instrument zero determined from (b) (1) (iii) (A).

(D) Determine your source specific 30-day rolling average operating limit using the lb/ton-clinker per milliamp or digital signal value from Equation 4 in Equation 5, below. This sets your operating limit at the PM CPMS output value corresponding to 75 percent of your emission limit.

$$O_1 = z + \frac{0.75(L)}{R} \quad (\text{Eq. 5})$$

Where:

$O_1$  = The operating limit for your PM CPMS on a 30-day rolling average, in milliamps or the digital equivalent.

L = Your source emission limit expressed in lb/ton clinker.

z = Your instrument zero in milliamps, or digital equivalent, determined from (b) (1) (iii) (A).

R = The relative lb/ton-clinker per milliamp, or digital equivalent, for your PM CPMS, from Equation 4.

(iv) If the average of your three PM compliance test runs is at or above 75 percent of your PM emission limit you must determine your operating limit by averaging the PM CPMS milliamp or digital equivalent output corresponding to your three PM performance test runs that demonstrate compliance with the emission limit using Equation 6.

$$O_h = \frac{1}{n} \sum_{i=1}^n X_i \quad (\text{Eq. 6})$$

Where:

$X_i$  = The PM CPMS data points for all runs i.

n = The number of data points.

$O_h$  = Your site specific operating limit, in milliamps or the digital equivalent.

(v) To determine continuous operating compliance, you must record the PM CPMS output data for all periods when the process is operating, and use all the PM CPMS data for calculations when the source is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to

calculate the arithmetic average operating parameter in units of the operating limit (milliamps or the digital equivalent) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. Use Equation 7 to determine the 30 kiln operating day average.

$$30\text{kiln operating day} = \frac{\sum_{i=1}^n Hp_{vi}}{n} \quad (\text{Eq. 7})$$

Where:

$Hp_{vi}$  = The hourly parameter value for hour  $i$ .

$n$  = The number of valid hourly parameter values collected over 30 kiln operating days.

(vi) For each performance test, conduct at least three separate test runs each while the mill is on and the mill is off, under the conditions that exist when the affected source is operating at the level reasonably expected to occur. Conduct each test run to collect a minimum sample volume of 2 dscm for determining compliance with a new source limit and 1 dscm for determining compliance with an existing source limit. Calculate the time weighted average of the results from three consecutive runs, including applicable sources as required by (b)(1)(viii), to determine compliance. You need not determine the particulate matter collected in the impingers ("back half") of the Method 5 or Method 5I particulate sampling train to demonstrate compliance with the PM standards of this subpart. This shall not

preclude the permitting authority from requiring a determination of the "back half" for other purposes.

(vii) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value or digital equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp or digital equivalent signals corresponding to each PM compliance test run.

(viii) When there is an alkali bypass and/or an inline coal mill with a separate stack associated with a kiln, the main exhaust and alkali bypass and/or inline coal mill must be tested simultaneously and the combined emission rate of PM from the kiln and alkali bypass and/or inline coal mill must be computed for each run using Equation 8 of this section.

$$E_{Cm} = \frac{E_K + E_B + E_C}{P} \quad (\text{Eq. 8})$$

Where:

$E_{Cm}$  = Combined hourly emission rate of PM from the kiln and bypass stack and/or inline coal mill, lb/ton of kiln clinker production.

$E_K$  = Hourly emissions of PM emissions from the kiln, lb.

$E_B$  = Hourly PM emissions from the alkali bypass stack, lb.

$E_c$  = Hourly PM emissions from the inline coal mill stack, lb.

P = Hourly clinker production, tons.

(ix) The owner or operator of a kiln with an in-line raw mill and subject to limitations on PM emissions shall demonstrate initial compliance by conducting separate performance tests while the raw mill is under normal operating conditions and while the raw mill is not operating, and calculate the time weighted average emissions. The operating limit will then be determined using 63.1349(b)(1)(i) of this section.

(2) *Opacity tests.* If you are subject to limitations on opacity under this subpart, you must conduct opacity tests in accordance with Method 9 of appendix A-4 to part 60 of this chapter. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of paragraphs (b)(2)(i) through (ii) of this section apply. For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating.

(i) There are no individual readings greater than 10 percent opacity;

(ii) There are no more than three readings of 10 percent for the first 1-hour period.

(3) *D/F Emissions Tests*. If you are subject to limitations on D/F emissions under this subpart, you must conduct a performance test using Method 23 of appendix A-7 to part 60 of this chapter. If your kiln or in-line kiln/raw mill is equipped with an alkali bypass, you must conduct simultaneous performance tests of the kiln or in-line kiln/raw mill exhaust and the alkali bypass. You may conduct a performance test of the alkali bypass exhaust when the raw mill of the in-line kiln/raw mill is operating or not operating.

(i) Each performance test must consist of three separate runs conducted under representative conditions. The duration of each run must be at least 3 hours, and the sample volume for each run must be at least 2.5 dscm (90 dscf).

(ii) The temperature at the inlet to the kiln or in-line kiln/raw mill PMCD, and, where applicable, the temperature at the inlet to the alkali bypass PMCD must be continuously recorded during the period of the Method 23 test, and the continuous temperature record(s) must be included in the performance test report.

(iii) Average temperatures must be calculated for each run of the performance test.

(iv) The run average temperature must be calculated for each run, and the average of the run average temperatures must be determined and included in the performance test report and will

determine the applicable temperature limit in accordance with §63.1346(b), footnote 2.

(v) (A) If sorbent injection is used for D/F control, you must record the rate of sorbent injection to the kiln exhaust, and where applicable, the rate of sorbent injection to the alkali bypass exhaust, continuously during the period of the Method 23 test in accordance with the conditions in §63.1350(m) (9), and include the continuous injection rate record(s) in the performance test report. Determine the sorbent injection rate parameters in accordance with paragraphs (b) (3) (vi) of this section.

(B) Include the brand and type of sorbent used during the performance test in the performance test report.

(C) Maintain a continuous record of either the carrier gas flow rate or the carrier gas pressure drop for the duration of the performance test. If the carrier gas flow rate is used, determine, record, and maintain a record of the accuracy of the carrier gas flow rate monitoring system according to the procedures in appendix A to part 75 of this chapter. If the carrier gas pressure drop is used, determine, record, and maintain a record of the accuracy of the carrier gas pressure drop monitoring system according to the procedures in §63.1350(m) (6) .

(vi) Calculate the run average sorbent injection rate for each run and determine and include the average of the run average injection rates in the performance test report and determine the applicable injection rate limit in accordance with §63.1346(c) (1).

(4) *THC emissions test.* (i) If you are subject to limitations on THC emissions, you must operate a CEMS in accordance with the requirements in §63.1350(i). For the purposes of conducting the accuracy and quality assurance evaluations for CEMS, the THC span value (as propane) is 50 ppmvd and the reference method (RM) is Method 25A of appendix A to part 60 of this chapter.

(ii) Use the THC CEMS to conduct the initial compliance test for the first 30 kiln operating days of kiln operation after the compliance date of the rule. See 63.1348(a).

(iii) If kiln gases are diverted through an alkali bypass or to a coal mill and exhausted through a separate stack, you must calculate a kiln-specific THC limit using Equation 9:

$$C_{ks} = \frac{(MACT\ Limit \times (Q_{ab} + Q_{cm} + Q_{ks})) - (Q_{ab} \times C_{ab}) - (Q_{cm} \times C_{cm})}{Q_{ks}} \quad (Eq. 9)$$

Where:

$C_{ks}$  = Kiln stack concentration (ppmvd).

$Q_{ab}$  = Alkali bypass flow rate (volume/hr).

$C_{ab}$  = Alkali bypass concentration (ppmvd).

$Q_{cm}$  = Coal mill flow rate (volume/hr).

$C_{cm}$  = Coal mill concentration (ppmvd).

$Q_{ks}$  = Kiln stack flow rate (volume/hr).

(iv) THC must be measured either upstream of the coal mill or the coal mill stack.

(v) Instead of conducting the performance test specified in paragraph (b)(4) of this section, you may conduct a performance test to determine emissions of total organic HAP by following the procedures in paragraphs (b)(7) of this section.

(5) *Mercury Emissions Tests.* If you are subject to limitations on mercury emissions, you must operate a mercury CEMS or a sorbent trap monitoring system in accordance with the requirements of §63.1350(k). The initial compliance test must be based on the first 30 kiln operating days in which the affected source operates using a mercury CEMS or a sorbent trap monitoring system after the compliance date of the rule. See §63.1348(a).

(i) If you are using a mercury CEMS or a sorbent trap monitoring system, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the exhaust gas flow rate to the atmosphere according to the requirements in §63.1350(k)(5).

(ii) Calculate the emission rate using Equation 10 of this section:

$$E_{30D} = k \frac{\sum_{i=1}^n C_i Q_i}{P} \text{ (Eq. 10)}$$

Where:

$E_{30D}$  = 30-day rolling emission rate of mercury, lb/MM tons clinker.

$C_i$  = Concentration of mercury for operating hour  $i$ ,  $\mu\text{g}/\text{scm}$ .

$Q_i$  = Volumetric flow rate of effluent gas for operating hour  $i$ , where  $C_i$  and  $Q_i$  are on the same basis (either wet or dry),  $\text{scm}/\text{hr}$ .

$k$  = Conversion factor, 1 lb/454,000,000  $\mu\text{g}$ .

$n$  = Number of kiln operating hours in the previous 30 kiln operating day period where both  $C$  and  $Q_i$  qualified data are available.

$P$  = Total runs from the previous 30 days of clinker production during the same time period as the mercury emissions measured, million tons.

(6) *HCl emissions tests*. For a source subject to limitations on HCl emissions you must conduct performance testing by one of the following methods:

(i) (A) If the source is equipped with a wet scrubber, tray tower or dry scrubber, you must conduct performance testing using Method 321 of appendix A to this part unless you have installed a CEMS that meets the requirements §63.1350(1)(1). For

kilns with inline raw mills, testing should be conducted for the raw mill on and raw mill off conditions.

(B) You must establish site specific parameter limits by using the CPMS required in §63.1350(1)(1). For a wet scrubber or tray tower, measure and record the pressure drop across the scrubber and/or liquid flow rate and pH in intervals of no more than 15 minutes during the HCl test. Compute and record the 24-hour average pressure drop, pH, and average scrubber water flow rate for each sampling run in which the applicable emissions limit is met. For a dry scrubber, measure and record the sorbent injection rate in intervals of no more than 15 minutes during the HCl test. Compute and record the 24-hour average sorbent injection rate and average sorbent injection rate for each sampling run in which the applicable emissions limit is met.

(ii)(A) If the source is not controlled by a wet scrubber, tray tower or dry sorbent injection system, you must operate a CEMS in accordance with the requirements of §63.1350(1)(1). See §63.1348(a).

(B) The initial compliance test must be based on the 30 kiln operating days that occur after the compliance date of this rule in which the affected source operates using an HCl CEMS. Hourly HCl concentration data must be obtained according to §63.1350(1).

(iii) As an alternative to paragraph (b) (6) (i) (B) of this section, you may choose to monitor SO<sub>2</sub> emissions using a CEMS in accordance with the requirements of §63.1350(1) (3). You must establish an SO<sub>2</sub> operating limit equal to the average recorded during the HCl stack test where the HCl stack test run result demonstrates compliance with the emission limit. This operating limit will apply only for demonstrating HCl compliance.

(iv) If kiln gases are diverted through an alkali bypass or to a coal mill and exhausted through a separate stack, you must calculate a kiln-specific HCl limit using Equation 11:

$$C_{ks} = \frac{(MACT\ Limit \times (Q_{ab} + Q_{cm} + Q_{ks})) - (Q_{ab} \times C_{ab}) - (Q_{cm} \times C_{cm})}{Q_{ks}} \quad (\text{Eq. 11})$$

Where:

C<sub>ks</sub> = Kiln stack concentration (ppmvd).

Q<sub>ab</sub> = Alkali bypass flow rate (volume/hr).

C<sub>ab</sub> = Alkali bypass concentration (ppmvd).

Q<sub>cm</sub> = Coal mill flow rate (volume/hr).

C<sub>cm</sub> = Coal mill concentration (ppmvd).

Q<sub>ks</sub> = Kiln stack flow rate (volume/hr).

(7) *Total Organic HAP Emissions Tests*. Instead of conducting the performance test specified in paragraph (b) (4) of this section, you may conduct a performance test to determine emissions of total organic HAP by following the procedures in paragraphs (b) (7) (i) through (v) of this section.

(i) Use Method 320 of appendix A to this part, Method 18 of Appendix A of part 60, ASTM D6348-03 or a combination to determine emissions of total organic HAP. Each performance test must consist of three separate runs under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). Each run must be conducted for at least 1 hour.

(ii) At the same time that you are conducting the performance test for total organic HAP, you must also determine a site-specific THC emissions limit by operating a THC CEMS in accordance with the requirements of §63.1350(j). The duration of the performance test must be at least 3 hours and the average THC concentration (as calculated from the recorded output) during the 3-hour test must be calculated. You must establish your THC operating limit and determine compliance with it according to paragraphs (b)(7)(vii) through (viii) of this section. It is permissible to extend the testing time of the organic HAP performance test if you believe extended testing is required to adequately capture organic HAP and/or THC variability over time.

(iii) If your source has an in-line kiln/raw mill you must use the fraction of time the raw mill is on and the fraction of time that the raw mill is off and calculate this limit as a

weighted average of the THC levels measured during three raw mill on and three raw mill off tests.

(iv) If your organic HAP emissions are below 75 percent of the organic HAP standard and you determine your operating limit with paragraph (b) (7) (vii) of this section your THC CEMS must be calibrated and operated on a measurement scale no greater than 180 ppmvw, as carbon, or 60 ppmvw as propane.

(v) If your kiln has an inline coal mill and/or an alkali bypass with separate stacks, you are required to measure and account for oHAP emissions from their separate stacks. You are required to measure oHAP at the coal mill inlet, and you must also measure oHAP at the alkali bypass outlet. You must then calculate a flow weighted average oHAP concentration for all emission sources including the inline coal mill and the alkali bypass.

(vi) Your THC CEMS measurement scale must be capable of reading THC concentrations from zero to a level equivalent to two times your highest THC emissions average determined during your performance test, including mill on or mill off operation.

NOTE: This may require the use of a dual range instrument to meet this requirement and paragraph (b) (7) (iv) of this section.

(vii) Determine your operating limit as specified in paragraphs (b) (7) (viii) and (ix) of this section. If your organic HAP performance test demonstrates your average organic

HAP emission levels are below 75 percent of your emission limit (9 ppmv) you will use the average THC value recorded during the organic HAP performance test, and the average total organic HAP result of your performance test to establish your operating limit. If your organic HAP compliance test results demonstrate that your average organic HAP emission levels are at or above 75 percent of your emission limit, your operating limit is established as the average THC value recorded during the organic HAP performance test. You must establish a new operating limit after each performance test. You must repeat the performance test no later than 30 months following your last performance test and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

(viii) If the average organic HAP results for your three Method 18 and/or Method 320 performance test runs are below 75 percent of your organic HAP emission limit, you must calculate an operating limit by establishing a relationship of THC CEMS signal to the organic HAP concentration using the average THC CEMS value corresponding to the three organic HAP compliance test runs and the average organic HAP total concentration from the Method 18 and/or Method 320 performance test runs with the procedures in (b) (7) (viii) (A) and (B) of this section.

(A) Determine the THC CEMS average values in ppmvw, and the average of your corresponding three total organic HAP compliance test runs, using Equation 12.

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n X_i, \bar{y} = \frac{1}{n} \sum_{i=1}^n Y_i \quad (\text{Eq. 12})$$

Where:

$\bar{x}$  = The THC CEMS average values in ppmvw.

$X_i$  = The THC CEMS data points for all three runs  $i$ .

$Y_i$  = The sum of organic HAP concentrations for test runs  $i$ . and

$n$  = The number of data points.

(B) You must use your three run average THC CEMS value and your three run average organic HAP concentration from your three Method 18 and/or Method 320 compliance tests to determine the operating limit. Use equation 13 to determine your operating limit in units of ppmvw THC, as propane.

$$T_1 = \left( \frac{9}{\bar{Y}_1} \right) \cdot X_1 \quad (\text{Eq. 13})$$

Where:

$T_1$  = The 30-day operating limit for your THC CEMS, ppmvw.

$\bar{Y}_1$  = The average organic HAP concentration from Eq. 12, ppmvd.

$X_1$  = The average THC CEMS concentration from Eq. 12, ppmvw.

(ix) If the average of your three organic HAP performance test runs is at or above 75 percent of your organic HAP emission limit, you must determine your operating limit using Equation 14 by averaging the THC CEMS output values corresponding to your

three organic HAP performance test runs that demonstrate compliance with the emission limit. If your new THC CEMS value is below your current operating limit, you may opt to retain your current operating limit, but you must still submit all performance test and THC CEMS data according to the reporting requirements in paragraph (d)(1) of this section.

$$T_h = \frac{1}{n} \sum_{i=1}^n X_i. \quad (\text{Eq. 14})$$

Where:

$X_i$  = The THC CEMS data points for all runs  $i$ .

$n$  = The number of data points.

$T_h$  = Your site specific operating limit, in ppmvw THC.

(x) If your kiln has an inline kiln/raw mill, you must conduct separate performance tests while the raw mill is operating ("mill on") and while the raw mill is not operating ("mill off"). Using the fraction of time the raw mill is on and the fraction of time that the raw mill is off, calculate this limit as a weighted average of the THC levels measured during raw mill on and raw mill off compliance testing with Equation 15.

$$R = (y * t) + (x * (1 - t)) \quad (\text{Eq. 15})$$

Where:

$R$  = Operating limit as THC, ppmvw.

$y$  = Average THC CEMS value during mill on operations, ppmvw.

t = Percentage of operating time with mill on.

x = Average THC CEMS value during mill off operations, ppmvw.

(1-t) = Percentage of operating time with mill off.

(xi) To determine continuous compliance with the THC operating limit, you must record the THC CEMS output data for all periods when the process is operating and the THC CEMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the THC CEMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (ppmvw) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. Use Equation 16 to determine the 30 kiln operating day average.

$$30\text{kiln operating day} = \frac{\sum_{i=1}^n H_{pvi}}{n} \quad (\text{Eq. 16})$$

Where:

H<sub>pvi</sub> = The hourly parameter value for hour i, ppmvw.

n = The number of valid hourly parameter values collected over 30 kiln operating days.

(xii) Use EPA Method 18 or Method 320 of appendix A to part 60 of this chapter to determine organic HAP emissions. For each performance test, conduct at least three separate runs under the conditions that exist when the affected source is operating at the level reasonably expected to occur. If your source has an

in-line kiln/raw mill you must conduct three separate test runs with the raw mill on, and three separate runs under the conditions that exist when the affected source is operating at the level reasonably expected to occur with the mill off. Conduct each Method 18 test run to collect a minimum target sample equivalent to three times the method detection limit. Calculate the average of the results from three runs to determine compliance.

(xiii) If the THC level exceeds by 10 percent or more your site-specific THC emissions limit, you must

(A) As soon as possible but no later than 30 days after the exceedance, conduct an inspection and take corrective action to return the THC CEMS measurements to within the established value; and

(B) Within 90 days of the exceedance or at the time of the 30 month compliance test, whichever comes first, conduct another performance test to determine compliance with the organic HAP limit and to verify or re-establish your site-specific THC emissions limit.

(8) HCl Emissions Tests with SO<sub>2</sub> Monitoring. If you choose to monitor SO<sub>2</sub> emissions using a CEMS to demonstrate HCl compliance, follow the procedures in (b) (8) (i) through (ix) of this section and in accordance with the requirements of §63.1350(1)(3). You must establish an SO<sub>2</sub> operating limit equal to the average

recorded during the HCl stack test. This operating limit will apply only for demonstrating HCl compliance.

(i) Use Method 321 of appendix A to this part to determine emissions of HCl. Each performance test must consist of three separate runs under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). Each run must be conducted for at least one hour.

(ii) At the same time that you are conducting the performance test for HCl, you must also determine a site-specific SO<sub>2</sub> emissions limit by operating an SO<sub>2</sub> CEMS in accordance with the requirements of §63.1350(l). The duration of the performance test must be three hours and the average SO<sub>2</sub> concentration (as calculated from the average output) during the 3-hour test must be calculated. You must establish your SO<sub>2</sub> operating limit and determine compliance with it according to paragraphs (b)(8)(vii) and (viii) of this section.

(iii) If your source has an in-line kiln/raw mill you must use the fraction of time the raw mill is on and the fraction of time that the raw mill is off and calculate this limit as a weighted average of the SO<sub>2</sub> levels measured during raw mill on and raw mill off testing.

(iv) Your SO<sub>2</sub> CEMS must be calibrated and operated according to the requirements of §60.63(f).

(v) Your SO<sub>2</sub> CEMS measurement scale must be capable of reading SO<sub>2</sub> concentrations consistent with the requirements of §60.63(f), including mill on or mill off operation.

(vi) If your kiln has an inline kiln/raw mill, you must conduct separate performance tests while the raw mill is operating ("mill on") and while the raw mill is not operating ("mill off"). Using the fraction of time the raw mill is on and the fraction of time that the raw mill is off, calculate this limit as a weighted average of the HCl levels measured during raw mill on and raw mill off compliance testing with Equation 17.

$$R=(y*t)+x*(t-1) \quad (\text{Eq. 17})$$

Where:

R = Operating limit as SO<sub>2</sub>, ppmvw.

y = Average SO<sub>2</sub> CEMS value during mill on operations, ppmvw.

t = Percentage of operating time with mill on, expressed as a decimal.

x = Average SO<sub>2</sub> CEMS value during mill off operations, ppmvw.

t-1 = Percentage of operating time with mill off, expressed as a decimal.

(vii) If the average of your three HCl compliance test runs is below 75 percent of your HCl emission limit, you may as a compliance alternative, calculate an operating limit by establishing a relationship of SO<sub>2</sub> CEMS signal to your HCl

concentration corrected to 7 percent O<sub>2</sub> by using the SO<sub>2</sub> CEMS instrument zero, the average SO<sub>2</sub> CEMS values corresponding to the three compliance test runs, and the average HCl concentration from the HCl compliance test with the procedures in (b) (8) (vii) (A) through (D) of this section.

(A) Determine your SO<sub>2</sub> CEMS instrument zero output with one of the following procedures.

(1) Zero point data for in-situ instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.

(2) Zero point data for extractive instruments may be obtained by removing the extractive probe from the stack and drawing in clean ambient air.

(3) The zero point may also be established by performing probe-flood introduction of high purity nitrogen or certified zero air free of SO<sub>2</sub>.

(4) If none of the steps in paragraphs (b) (8) (vii) (A) (1) through (3) of this section are possible, you must use a zero output value provided by the manufacturer.

(B) Determine your SO<sub>2</sub> CEMS instrument average ppm, and the average of your corresponding three HCl compliance test runs, using equation 18.

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n X_i, \bar{y} = \frac{1}{n} \sum_{i=1}^n Y_i$$

(Eq. 18)

Where:

$X_1$  = The SO<sub>2</sub> CEMS data points for the three runs constituting the performance test.

$Y_1$  = The HCl emission concentration expressed as ppmv corrected to 7 percent O<sub>2</sub> for the three runs constituting the performance test.

$n$  = The number of data points.

(C) With your instrument zero expressed in ppmv, your three run average SO<sub>2</sub> CEMS expressed in ppmv, and your three run HCl compliance test average in ppm corrected to 7 percent O<sub>2</sub>, determine a relationship of ppm HCl corrected to 7 percent O<sub>2</sub> per ppm SO<sub>2</sub> with Equation 19.

$$R = \frac{Y_1}{(X_1 - z)}$$

(Eq. 19)

Where:

$R$  = The relative HCl ppmv corrected to 7 percent O<sub>2</sub> per ppm SO<sub>2</sub> for your SO<sub>2</sub> CEMS.

$Y_1$  = The three run average HCl concentration corrected to 7 percent O<sub>2</sub>.

$X_1$  = The three run average ppm recorded by your SO<sub>2</sub> CEMS.

$z$  = The instrument zero output ppm value.

(D) Determine your source specific 30-day rolling average operating limit using ppm HCl corrected to 7 percent O<sub>2</sub> per ppm SO<sub>2</sub> value from Equation 19 in Equation 20, below. This sets your operating limit at the SO<sub>2</sub> CEMS ppm value corresponding to 75 percent of your emission limit.

$$O_1 = z + \frac{0.75(L)}{R}$$

(Eq. 20)

Where:

O<sub>1</sub> = The operating limit for your SO<sub>2</sub> CEMS on a 30-day rolling average, in ppmv.

L = Your source HCl emission limit expressed in ppmv corrected to 7 percent O<sub>2</sub>.

z = Your instrument zero in ppmv, determined from (1)(i).

R = The relative oxygen corrected ppmv HCl per ppmv SO<sub>2</sub>, for your SO<sub>2</sub> CEMS, from Equation 19.

(viii) To determine continuous compliance with the SO<sub>2</sub> operating limit, you must record the SO<sub>2</sub> CEMS output data for all periods when the process is operating and the SO<sub>2</sub> CEMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the SO<sub>2</sub> CEMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit

(ppmvw) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. Use Equation 21 to determine the 30 kiln operating day average.

$$\mathbf{30kiln\ operating\ day} = \frac{\sum_{i=1}^n Hpvi}{n}$$

(Eq. 21)

Where:

Hpvi = The hourly parameter value for hour i, ppmvw.

n = The number of valid hourly parameter values collected over 30 kiln operating days.

(ix) Use EPA Method 321 of appendix A to part 60 of this chapter to determine HCl emissions. For each performance test, conduct at least three separate runs under the conditions that exist when the affected source is operating at the level reasonably expected to occur. If your source has an in-line kiln/raw mill you must conduct three separate test runs with the raw mill on, and three separate runs under the conditions that exist when the affected source is operating at the level reasonably expected to occur with the mill off.

(x) If the SO<sub>2</sub> level exceeds by 10 percent or more your site-specific SO<sub>2</sub> emissions limit, you must

(A) As soon as possible but no later than 30 days after the exceedance, conduct an inspection and take corrective action to return the SO<sub>2</sub> CEMS measurements to within the established value.

(B) Within 90 days of the exceedance or at the time of the periodic compliance test, whichever comes first, conduct another performance test to determine compliance with the HCl limit and to verify or re-establish your site-specific SO<sub>2</sub> emissions limit.

(c) *Performance Test Frequency.* Except as provided in §63.1348(b), performance tests are required at regular intervals for affected sources that are subject to a dioxin, organic HAP or HCl emissions limit. Performance tests required every 30 months must be completed between 29 and 31 calendar months after the previous performance test except where that specific pollutant is monitored using CEMS; performance tests required every 12 months must be completed within 11 to 13 calendar months after the previous performance test.

\* \* \* \* \*

(d) \* \* \*

(1) \* \* \*

(i) \* \* \*

(ii) The values for the site-specific operating limits or parameters established pursuant to paragraphs (b)(1), (3), (6), (7) and (8) of this section, as applicable, and a description, including sample calculations, of how the operating parameters were established during the initial performance test.

\* \* \* \* \*

14. Section 63.1350 is amended by:

a. Removing and reserving paragraph (a) (2).

b. Revising paragraphs (i) (1), (2), (j), (k) (2), (ii), (5) (i) and (iv), (1), (n) introductory text, (1), (4), (o) introductory text, and (o) (3) introductory text.

c. Adding paragraphs (k) (2) (iii) and (iv).

The revisions read as follows:

**§63.1350 Monitoring requirements.**

(a) \* \* \*

(2) [Reserved]

\* \* \* \* \*

(i) \* \* \*

(1) You must install, operate, and maintain a THC continuous emission monitoring system in accordance with Performance Specification 8 or Performance Specification 8A of appendix B to part 60 of this chapter and comply with all of the requirements for continuous monitoring systems found in the general provisions, subpart A of this part. The owner or operator must operate and maintain each CEMS according to the quality assurance requirements in Procedure 1 of appendix F in part 60 of this chapter. For THC continuous emission monitoring systems certified under Performance Specification 8A, conduct the relative accuracy test audits required under Procedure 1 in accordance with Performance Specification 8, Sections 8 and 11

using Method 25A in appendix A to 40 CFR part 60 as the reference method; the relative accuracy must meet the criteria of Performance Specification 8, Section 13.2.

(2) Performance tests on alkali bypass and coal mill stacks must be conducted using Method 25A in appendix A to 40 CFR part 60 and repeated every 30 months.

(j) *Total organic HAP monitoring requirements.* If you are complying with the total organic HAP emissions limits, you must continuously monitor THC according to paragraph (i)(1) and (2) or in accordance with Performance Specification 8 or Performance Specification 8A of appendix B to part 60 of this chapter and comply with all of the requirements for continuous monitoring systems found in the general provisions, subpart A of this part. You must operate and maintain each CEMS according to the quality assurance requirements in Procedure 1 of appendix F in part 60 of this chapter. In addition, you must follow the monitoring requirements in paragraphs (m)(1) through (4) of this section. You must also develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (4) of this section.

(k) \* \* \*

(2) In order to quality assure data measured above the span value, you must use one of the three options in paragraphs (k)(2)(i) through (iii) of this section. Where the options in paragraphs (k)(2)(i) through (iii) of this section are employed

while the kiln is operating in a mill-off mode, the "above span" described in paragraph (k)(2)(iii) of this section may substitute for the daily upscale calibration provided the data normalization process in paragraph (k)(2)(iii) of this section are not required. If data normalization is required, the normal daily upscale calibration check must be performed to quality assure the operation of the CEMS for that day. In this particular case, adjustments to CEMS normally required by Procedure 5 when a daily upscale does not meet the 5 percent criterion are not required, unless paragraph (k)(2)(iii) of this section data normalization is necessary and a subsequent normal daily calibration check demonstrates the need for such adjustment.

\* \* \* \* \*

(ii) Quality assure any data above the span value by proving instrument linearity beyond the span value established in paragraph (k)(1) of this section using the following procedure. Conduct a weekly "above span linearity" calibration challenge of the monitoring system using a reference gas with a certified value greater than your highest expected hourly concentration or greater than 75 percent of the highest measured hourly concentration. The "above span" reference gas must meet the requirements of PS 12A, Section 7.1 and must be introduced to the measurement system at the probe. Record and report the

results of this procedure as you would for a daily calibration. The "above span linearity" challenge is successful if the value measured by the Hg CEMS falls within 10 percent of the certified value of the reference gas. If the value measured by the Hg CEMS during the above span linearity challenge exceeds +/-10 percent of the certified value of the reference gas, the monitoring system must be evaluated and repaired and a new "above span linearity" challenge met before returning the Hg CEMS to service, or data above span from the Hg CEMS must be subject to the quality assurance procedures established in paragraph(k) (2) (iii) of this section. In this manner values measured by the Hg CEMS during the above span linearity challenge exceeding +/-20 percent of the certified value of the reference gas must be normalized using Equation 22.

(iii) Quality assure any data above the span value established in paragraph (k) (1) of this section using the following procedure. Any time two consecutive one-hour average measured concentrations of Hg exceeds the span value you must, within 24 hours before or after, introduce a higher, "above span" Hg reference gas standard to the Hg CEMS. The "above span" reference gas must meet the requirements of PS 12A, Section 7.1, must target a concentration level between 50 and 150 percent of the highest expected hourly concentration measured during the period of measurements above span, and must be introduced at the

probe. While this target represents a desired concentration range that is not always achievable in practice, it is expected that the intent to meet this range is demonstrated by the value of the reference gas. Expected values may include "above span" calibrations done before or after the above span measurement period. Record and report the results of this procedure as you would for a daily calibration. The "above span" calibration is successful if the value measured by the Hg CEMS is within 20 percent of the certified value of the reference gas. If the value measured by the Hg CEMS exceeds 20 percent of the certified value of the reference gas, then you must normalize the one-hour average stack gas values measured above the span during the 24-hour period preceding or following the "above span" calibration for reporting based on the Hg CEMS response to the reference gas as shown in equation 22:

$$\frac{\text{Certified reference gas value}}{\text{Measured value of reference gas}} \times \text{Measured stack gas result} \\ = \text{Normalized stack gas result} \quad (\text{Eq. 22})$$

Only one "above span" calibration is needed per 24 hour period. If the "above span" calibration is conducted during the period when measured emissions are above span and there is a failure to collect at least one valid data point in an hour due to the calibration duration, then you must determine the emissions average for that missed hour as the average of hourly averages

for the hour preceding the missed hour and the hour following the missed hour. In an hour where an "above span" calibration is being conducted and one or more data points are collected, the emissions average is represented by the average of all valid data points collected in that hour.

\* \* \* \* \*

(5) \* \* \*

(i) Develop a mercury hourly mass emissions rate by conducting performance tests annually, within 11 to 13 calendar months after the previous performance test, using Method 29, or Method 30B, to measure the concentration of mercury in the gases exhausted from the alkali bypass and coal mill.

\* \* \* \* \*

(iv) If mercury emissions from the coal mill and alkali bypass are below the method detection limit for two consecutive annual performance tests, you may reduce the frequency of the performance tests of coal mills and alkali bypasses to once every 30 months. If the measured mercury concentration exceeds the method detection limit, you must revert to testing annually until two consecutive annual tests are below the method detection limit.

\* \* \* \* \*

(1) *HCl Monitoring Requirements*. If you are subject to an emissions limitation on HCl emissions in §63.1343, you must monitor HCl emissions continuously according to paragraph (l)(1) or (2) and paragraphs (m)(1) through (4) of this section or, if your kiln is controlled using a wet or dry scrubber or tray tower, you alternatively may parametrically monitor SO<sub>2</sub> emissions continuously according to paragraph (l)(3) of this section. You must also develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (4) of this section.

(1) If you monitor compliance with the HCl emissions limit by operating an HCl CEMS, you must do so in accordance with Performance Specification 15 (PS 15) of appendix B to part 60 of this chapter, or, upon promulgation, in accordance with any other performance specification for HCl CEMS in appendix B to part 60 of this chapter. You must operate, maintain, and quality assure a HCl CEMS installed and certified under PS 15 according to the quality assurance requirements in Procedure 1 of appendix F to part 60 of this chapter except that the Relative Accuracy Test Audit requirements of Procedure 1 must be replaced with the validation requirements and criteria of sections 11.1.1 and 12.0 of PS 15. When promulgated, if you choose to install and operate an HCl CEMS in accordance with PS 18 of appendix B to part 60 of this chapter, you must operate, maintain and quality assure the HCl CEMS using the associated Procedure 6 of appendix F to part

60 of this chapter. For any performance specification that you use, you must use Method 321 of appendix A to part 63 of this chapter as the reference test method for conducting relative accuracy testing. The span value and calibration requirements in paragraphs (1)(1)(i) and (ii) of this section apply to all HCl CEMS used under this subpart.

(i) You must use a measurement span value for any HCl CEMS of 0-10 ppmvw unless the monitor is installed on a kiln without an inline raw mill. Kilns without an inline raw mill may use a higher span value sufficient to quantify all expected emissions concentrations. The HCl CEMS data recorder output range must include the full range of expected HCl concentration values which would include those expected during "mill off" conditions. The corresponding data recorder range shall be documented in the site-specific monitoring plan and associated records.

(ii) In order to quality assure data measured above the span value, you must use one of the three options in paragraphs (1)(1)(ii)(A) through (C) of this section.

(A) Include a second span that encompasses the HCl emission concentrations expected to be encountered during "mill off" conditions. This second span may be rounded to a multiple of 5 ppm of total HCl. The requirements of the appropriate HCl monitor performance specification shall be followed for this

second span with the exception that a RATA with the mill off is not required.

(B) Quality assure any data above the span value by proving instrument linearity beyond the span value established in paragraph (1)(1)(i) of this section using the following procedure. Conduct a weekly "above span linearity" calibration challenge of the monitoring system using a reference gas with a certified value greater than your highest expected hourly concentration or greater than 75 percent of the highest measured hourly concentration. The "above span" reference gas must meet the requirements of the applicable performance specification and must be introduced to the measurement system at the probe. Record and report the results of this procedure as you would for a daily calibration. The "above span linearity" challenge is successful if the value measured by the HCl CEMS falls within 10 percent of the certified value of the reference gas. If the value measured by the HCl CEMS during the above span linearity challenge exceeds 10 percent of the certified value of the reference gas, the monitoring system must be evaluated and repaired and a new "above span linearity" challenge met before returning the HCl CEMS to service, or data above span from the HCl CEMS must be subject to the quality assurance procedures established in paragraph (1)(1)(C) of this section. Any HCl CEMS above span linearity challenge exceeding +/-20 percent of

the certified value of the reference gas requires that all above span data must be normalized using Equation 23.

(C) Quality assure any data above the span value established in paragraph (1)(1)(i) of this section using the following procedure. Any time two consecutive one-hour average measured concentration of HCl exceeds the span value you must, within 24 hours before or after, introduce a higher, "above span" HCl reference gas standard to the HCl CEMS. The "above span" reference gas must meet the requirements of the applicable performance specification and target a concentration level between 50 and 150 percent of the highest expected hourly concentration measured during the period of measurements above span, and must be introduced at the probe. While this target represents a desired concentration range that is not always achievable in practice, it is expected that the intent to meet this range is demonstrated by the value of the reference gas. Expected values may include above span calibrations done before or after the above-span measurement period. Record and report the results of this procedure as you would for a daily calibration. The "above span" calibration is successful if the value measured by the HCl CEMS is within 20 percent of the certified value of the reference gas. If the value measured by the HCl CEMS is not within 20 percent of the certified value of the reference gas, then you must normalize the stack gas values

measured above span as described in paragraph (1) (1) (ii) (D) of this section. If the "above span" calibration is conducted during the period when measured emissions are above span and there is a failure to collect at least one valid data point in an hour due to the calibration duration, then you must determine the emissions average for that missed hour as the average of hourly averages for the hour preceding the missed hour and the hour following the missed hour. In an hour where an "above span" calibration is being conducted and one or more data points are collected, the emissions average is represented by the average of all valid data points collected in that hour.

(D) In the event that the "above span" calibration is not successful (i.e., the HCl CEMS measured value is not within 20 percent of the certified value of the reference gas), then you must normalize the one-hour average stack gas values measured above the span during the 24-hour period preceding or following the 'above span' calibration for reporting based on the HCl CEMS response to the reference gas as shown in Equation 23:

$$\frac{\text{Certified reference gas value}}{\text{Measured value of reference gas}} \times \text{Measured stack gas result} \\ = \text{Normalized stack gas result} \quad (\text{Eq. 23})$$

Only one "above span" calibration is needed per 24-hour period.

(2) Install, operate, and maintain a CMS to monitor wet scrubber or tray tower parameters, as specified in paragraphs

(m) (5) and (7) of this section, and dry scrubber, as specified in paragraph (m) (9) of this section.

(3) If the source is equipped with a wet or dry scrubber or tray tower, and you choose to monitor SO<sub>2</sub> emissions, monitor SO<sub>2</sub> emissions continuously according to the requirements of §60.63(e) through (f) of part 60 subpart F of this chapter. If SO<sub>2</sub> levels increase above the 30-day rolling average SO<sub>2</sub> operating limit established during your performance test, you must:

(i) As soon as possible but no later than 48 hours after you exceed the established SO<sub>2</sub> value conduct an inspection and take corrective action to return the SO<sub>2</sub> emissions to within the operating limit; and

(ii) Within 60 days of the exceedance or at the time of the next compliance test, whichever comes first, conduct an HCl emissions compliance test to determine compliance with the HCl emissions limit and to verify or re-establish the SO<sub>2</sub> CEMS operating limit.

\* \* \* \* \*

(n) *Continuous Flow Rate Monitoring System.* You must install, operate, calibrate, and maintain instruments, according to the requirements in paragraphs (n) (1) through (10) of this section, for continuously measuring and recording the stack gas flow rate to allow determination of the pollutant mass emissions

rate to the atmosphere from sources subject to an emissions limitation that has a pounds per ton of clinker unit and that is required to be monitored by a CEMS.

(1) You must install each sensor of the flow rate monitoring system in a location that provides representative measurement of the exhaust gas flow rate at the sampling location of the mercury CEMS, taking into account the manufacturer's recommendations. The flow rate sensor is that portion of the system that senses the volumetric flow rate and generates an output proportional to that flow rate.

\* \* \* \* \*

(4) The flow rate monitoring system must be equipped with a data acquisition and recording system that is capable of recording values over the entire range specified in paragraph (n)(2) of this section.

\* \* \* \* \*

(o) *Alternate monitoring requirements approval.* You may submit an application to the Administrator for approval of alternate monitoring requirements to demonstrate compliance with the emission standards of this subpart subject to the provisions of paragraphs (o)(1) through (6) of this section.

\* \* \* \* \*

(3) You must submit the application for approval of alternate monitoring requirements no later than the notification

of performance test. The application must contain the information specified in paragraphs (o)(3)(i) through (iii) of this section:

\* \* \* \* \*

15. 63.1354 is amended by:

a. Revising paragraphs (b)(9) introductory text through (vi).

b. Adding paragraphs (b)(9)(viii) through (x).

The revisions and additions read as follows:

**§63.1354 Reporting requirements.**

\* \* \* \* \*

(b) \* \* \*

(9) The owner or operator shall submit a summary report semiannually to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx).) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the extensible markup language (XML) schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report the Administrator at

the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. The reports must be submitted by the deadline specified in this subpart, regardless of the method in which the reports are submitted.

The report must contain the information specified in §63.10(e)(3)(vi). In addition, the summary report shall include:

(i) All exceedances of maximum control device inlet gas temperature limits specified in §63.1346(a) and (b);

(ii) Notification of any failure to calibrate thermocouples and other temperature sensors as required under §63.1350(g)(1)(iii) of this subpart; and

(iii) Notification of any failure to maintain the activated carbon injection rate, and the activated carbon injection carrier gas flow rate or pressure drop, as applicable, as required under §63.1346(c)(2).

(iv) Notification of failure to conduct any combustion system component inspections conducted within the reporting period as required under §63.1347(a)(3).

(v) Any and all failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1347(a).

(vi) For each PM CPMS, HCl, Hg, and THC CEMS, D/F temperature monitoring system, or Hg sorbent trap monitoring

system, within 60 days after the reporting periods, you must report all of the calculated 30-operating day rolling average values derived from the CPMS, CEMS, CMS, or Hg sorbent trap monitoring systems.

\* \* \* \* \*

(viii) Within 60 days after the date of completing each CEMS performance evaluation test as defined in §63.2, you must submit relative accuracy test audit (RATA) data to the EPA's CDX by using CEDRI in accordance with paragraph (b)(9) of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in §63.13.

(ix) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run.

(x) All reports required by this subpart not subject to the requirements in paragraphs (b) (9) introductory text and (viii) of this section must be sent to the Administrator at the appropriate address listed in §63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraph (b) (9) introductory text and (viii) of this section in paper format.

\* \* \* \* \*

16. Revise §63.1355 by removing and reserving paragraph (d).

**§63.1355 Recordkeeping requirements.**

\* \* \* \* \*

(d) [Reserved]

\* \* \* \* \*

17. Revise §63.1356 to read as follows:

**§63.1356 Sources with multiple emissions limit or monitoring requirements.**

If you have an affected source subject to this subpart with a different emissions limit or requirement for the same pollutant under another regulation in title 40 of this chapter, once you are in compliance with the most stringent emissions limit or requirement, you are not subject to the less stringent

requirement. Until you are in compliance with the more stringent limit, the less stringent limit continues to apply.

18. Remove and reserve §63.1357.

**§63.1357 [Reserved]**

\* \* \* \* \*

19. Revise Table 1 to Subpart LLL of Part 63 to read as follows:

**Table 1 to Subpart LLL of Part 63—Applicability of General Provisions**

Citation	Requirement	Applies to subpart LLL	Explanation
63.1(a)(1)-(4)	Applicability	Yes	
63.1(a)(5)		No	[Reserved]
63.1(a)(6)-(8)	Applicability	Yes	
63.1(a)(9)		No	[Reserved]
63.1(a)(10)-(14)	Applicability	Yes	
63.1(b)(1)	Initial Applicability Determination	No	§ 63.1340 specifies applicability.
63.1(b)(2)-(3)	Initial Applicability Determination	Yes	
63.1(c)(1)	Applicability After Standard Established	Yes	
63.1(c)(2)	Permit Requirements	Yes	Area sources must obtain Title V permits.
63.1(c)(3)		No	[Reserved]
63.1(c)(4)-(5)	Extensions, Notifications	Yes.	
63.1(d)		No	[Reserved]

63.1(e)	Applicability of Permit Program	Yes	
63.2	Definitions	Yes	Additional definitions in § 63.1341.
63.3(a)-(c)	Units and Abbreviations	Yes	
63.4(a)(1)-(3)	Prohibited Activities	Yes	
63.4(a)(4)		No	[Reserved]
63.4(a)(5)	Compliance date	Yes	
63.4(b)-(c)	Circumvention, Severability	Yes	
63.5(a)(1)-(2)	Construction/Reconstruction	Yes	
63.5(b)(1)	Compliance Dates	Yes	
63.5(b)(2)		No	[Reserved]
63.5(b)(3)-(6)	Construction Approval, Applicability	Yes	
63.5(c)		No	[Reserved]
63.5(d)(1)-(4)	Approval of Construction/Reconstruction	Yes	
63.5(e)	Approval of Construction/Reconstruction	Yes	
63.5(f)(1)-(2)	Approval of Construction/Reconstruction	Yes	
63.6(a)	Compliance for Standards and Maintenance	Yes	
63.6(b)(1)-(5)	Compliance Dates	Yes	
63.6(b)(6)		No	[Reserved]
63.6(b)(7)	Compliance Dates	Yes	
63.6(c)(1)-(2)	Compliance Dates	Yes	
63.6(c)(3)-(4)		No	[Reserved]
63.6(c)(5)	Compliance Dates	Yes	

63.6(d)		No	[Reserved]
63.6(e)(1)-(2)	Operation & Maintenance	No	See § 63.1348(d) for general duty requirement. Any reference to § 63.6(e)(1)(i) in other General Provisions or in this subpart is to be treated as a cross-reference to § 63.1348(d).
63.6(e)(3)	Startup, Shutdown Malfunction Plan	No	Your operations and maintenance plan must address periods of startup and shutdown. See § 63.1347(a)(1).
63.6(f)(1)	Compliance with Emission Standards	No	Compliance obligations specified in subpart LLL.
63.6(f)(2)-(3)	Compliance with Emission Standards	Yes	
63.6(g)(1)-(3)	Alternative Standard	Yes	
63.6(h)(1)	Opacity/VE Standards	No	Compliance obligations specified in subpart LLL.
63.6(h)(2)	Opacity/VE Standards	Yes	
63.6(h)(3)		No	[Reserved]
63.6(h)(4)-(h)(5)(i)	Opacity/VE Standards	Yes	

63.6(h) (5) (ii) - (iv)	Opacity/VE Standards	No	Test duration specified in subpart LLL.
63.6(h) (6)	Opacity/VE Standards	Yes	
63.6(h) (7)	Opacity/VE Standards	Yes	
63.6(i) (1) - (14)	Extension of Compliance	Yes	
63.6(i) (15)		No	[Reserved]
63.6(i) (16)	Extension of Compliance	Yes	
63.6(j)	Exemption from Compliance	Yes	
63.7(a) (1) - (3)	Performance Testing Requirements	Yes	§ 63.1349 has specific requirements.
63.7(b)	Notification period	Yes	Except for repeat performance test caused by an exceedance. See § 63.1353 (b) (6)
63.7(c)	Quality Assurance/Test Plan	Yes	
63.7(d)	Testing Facilities	Yes	
63.7(e) (1)	Conduct of Tests	No	See § 63.1349 (e) . Any reference to 63.7 (e) (1) in other General Provisions or in this subpart is to be treated as a cross-reference to § 63.1349 (e) .
63.7(e) (2) - (4)	Conduct of tests	Yes	
63.7(f)	Alternative Test Method	Yes	
63.7(g)	Data Analysis	Yes	
63.7(h)	Waiver of Tests	Yes	

63.8(a)(1)	Monitoring Requirements	Yes	
63.8(a)(2)	Monitoring	No	§ 63.1350 includes CEMS requirements.
63.8(a)(3)		No	[Reserved]
63.8(a)(4)	Monitoring	No	Flares not applicable.
63.8(b)(1)-(3)	Conduct of Monitoring	Yes	
63.8(c)(1)-(8)	CMS Operation/Maintenance	Yes	Temperature and activated carbon injection monitoring data reduction requirements given in subpart LLL.
63.8(d)	Quality Control	Yes, except for the reference to the SSM Plan in the last sentence	
63.8(e)	Performance Evaluation for CMS	Yes	
63.8(f)(1)-(5)	Alternative Monitoring Method	Yes	Additional requirements in § 63.1350(1).
63.8(f)(6)	Alternative to RATA Test	Yes	
63.8(g)	Data Reduction	Yes	
63.9(a)	Notification Requirements	Yes	
63.9(b)(1)-(5)	Initial Notifications	Yes	
63.9(c)	Request for Compliance Extension	Yes	

63.9(d)	New Source Notification for Special Compliance Requirements	Yes	
63.9(e)	Notification of performance test	Yes	Except for repeat performance test caused by an exceedance. See § 63.1353(b)(6)
63.9(f)	Notification of VE/Opacity Test	Yes	Notification not required for VE/opacity test under § 63.1350(e) and (j).
63.9(g)	Additional CMS Notifications	Yes	
63.9(h)(1)-(3)	Notification of Compliance Status	Yes	
63.9(h)(4)		No	[Reserved]
63.9(h)(5)-(6)	Notification of Compliance Status	Yes	
63.9(i)	Adjustment of Deadlines	Yes	
63.9(j)	Change in Previous Information	Yes	
63.10(a)	Recordkeeping/Reporting	Yes	
63.10(b)(1)	General Recordkeeping Requirements	Yes	
63.10(b)(2)(i)-(ii)	General Recordkeeping Requirements	No	See § 63.1355(g) and (h).
63.10(b)(2)(iii)	General Recordkeeping Requirements	Yes	
63.10(b)(2)(iv)-(v)	General Recordkeeping Requirements	No	
63.10(b)(2)(vi)-(ix)	General Recordkeeping Requirements	Yes	

63.10 (c) (1)	Additional CMS Recordkeeping	Yes	PS-8A supersedes requirements for THC CEMS.
63.10 (c) (1)	Additional CMS Recordkeeping	Yes	PS-8A supersedes requirements for THC CEMS.
63.10 (c) (2) - (4)		No	[Reserved]
63.10 (c) (5) - (8)	Additional CMS Recordkeeping	Yes	PS-8A supersedes requirements for THC CEMS.
63.10 (c) (9)		No	[Reserved]
63.10 (c) (10) - (15)	Additional CMS Recordkeeping	Yes	PS-8A supersedes requirements for THC CEMS.
63.10 (d) (1)	General Reporting Requirements	Yes	
63.10 (d) (2)	Performance Test Results	Yes	
63.10 (d) (3)	Opacity or VE Observations	Yes	
63.10 (d) (4)	Progress Reports	Yes	
63.10 (d) (5)	Startup, Shutdown, Malfunction Reports	No	See § 63.1354 (c) for reporting requirements. Any reference to § 63.10 (d) (5) in other General Provisions or in this subpart is to be treated as a cross-reference to § 63.1354 (c).
63.10 (e) (1) - (2)	Additional CMS Reports	Yes	

63.10 (e) (3)	Excess Emissions and CMS Performance Reports	Yes	Exceedances are defined in subpart LLL.
63.10 (e) (3) (vii) and (viii)	Excess Emissions and CMS Performance Reports	No	Superseded by 63.1354 (b) (10)
63.10 (f)	Waiver for Recordkeeping/Reporting	Yes	
63.11 (a) - (b)	Control Device Requirements	No	Flares not applicable.
63.12 (a) - (c)	State Authority and Delegations	Yes	
63.13 (a) - (c)	State/Regional Addresses	Yes	
63.14 (a) - (b)	Incorporation by Reference	Yes	
63.15 (a) - (b)	Availability of Information	Yes	