



6560-50-P

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Parts 60 and 63**

**[EPA-HQ-OAR-2011-0817; FRL-9918-60-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: Amendments**

**AGENCY:** Environmental Protection Agency.

**ACTION:** Proposed rule.

**SUMMARY:** On February 12, 2013, the Environmental Protection Agency (EPA) finalized amendments to the national emission standards for the control of hazardous air pollutants (NESHAP) from the new and existing Portland cement manufacturing industry at major sources of hazardous air pollutants (HAP).

Subsequently, the EPA has become aware of certain minor technical errors in those amendments, and is, accordingly, proposing amendments and technical corrections to the final rule. In addition, the EPA plans to remove rule provisions establishing an affirmative defense in the final technical correction rule.

**DATES:** Comments. Comments must be received on or before [**insert date 60 days after publication in the federal register**], or 30 days after date of public hearing, if later.

Public Hearing. If anyone contacts the EPA requesting to speak at a public hearing by [**insert the date 5 days after the date of publication in the federal register**], we will hold a public hearing on [**insert the date 15 days after the date of publication in the federal register**] on the EPA campus at 109 T.W. Alexander Drive, Research Triangle Park, North Carolina.

**ADDRESSES:** Comments. Submit your comments, identified by Docket ID Number EPA-HQ-OAR-2011-0817, by one of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>: Follow the online instructions for submitting comments.
- Email: [A-and-R-Docket@epa.gov](mailto:A-and-R-Docket@epa.gov). Include Attention Docket ID No. EPA-HQ-OAR-2011-0817 in the subject line of the message.
- Fax: (202) 566-9744, Attention Docket ID No. EPA-HQ-OAR-2011-0817.
- Mail: Environmental Protection Agency, EPA Docket Center(EPA/DC), Mail Code 28221T, Attention Docket ID No. EPA-HQ-OAR-2011-0817, 1200 Pennsylvania Ave., NW, Washington, DC 20460. In addition, please mail a copy of your comments on the information collection provisions to the Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Attn: Desk Officer for EPA, 725 17<sup>th</sup> Street, NW, Washington, DC 20503.
- Hand/Courier Delivery: EPA Docket Center, Room 3334, EPA WJC West Building, 1301 Constitution Ave., NW, Washington, DC 20004, Attention Docket ID Number EPA-HQ-OAR-2011-0817. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions. Direct your comments to Docket ID Number EPA-HQ-OAR-2011-0817. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <http://www.regulations.gov>, including any personal information provided, unless the comment includes information claimed to be confidential business information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through <http://www.regulations.gov> or email. The <http://www.regulations.gov> website is an "anonymous access" system, which means the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to the EPA without going through <http://www.regulations.gov>, your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, the EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment. Electronic files should not include special characters or any form of encryption and be free of any defects or viruses. For additional

information about the EPA's public docket, visit the EPA Docket Center homepage at: <http://www.epa.gov/dockets>.

Docket. The EPA has established a docket for this rulemaking under Docket ID Number 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., 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 in <http://www.regulations.gov> or in hard copy at the EPA Docket Center, Room 3334, EPA WJC West Building, 1301 Constitution Avenue, NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the EPA Docket Center is (202) 566-1742.

Public Hearing. If anyone contacts the EPA requesting a public hearing by **[insert the date 5 days after the date of publication in the federal register]**, the public hearing will be held on **[insert the date 15 days after the date of publication in the federal register]** at the EPA's campus at 109 T.W. Alexander Drive, Research Triangle Park, North Carolina. The

hearing will begin at 1:00 p.m. (Eastern Standard Time) and conclude at 5:00 p.m. (Eastern Standard Time). Please contact Ms. Pamela Garrett at (919)541-7966 or to register to speak at the hearing, or to inquire about whether a hearing will be held. The last day to pre-register in advance to speak at the hearings will be **[insert date 12 days after publication in the federal register]**. Additionally, requests to speak will be taken the day of the hearing at the hearing registration desk, although preferences on speaking times may not be able to be fulfilled. If you require the service of a translator or special accommodations such as audio description, please let us know at the time of registration. If you require an accommodation, we ask that you pre-register for the hearing, as we may not be able to arrange such accommodations without advance notice.

The hearing will provide interested parties the opportunity to present data, views or arguments concerning the proposed action. The EPA will make every effort to accommodate all speakers who arrive and register. Because this hearing is being held at a U.S. government facility, individuals planning to attend the hearing should be prepared to show valid picture identification to the security staff in order to gain access to the meeting room. Please note that the REAL ID Act, passed by Congress in 2005, established new requirements for entering federal facilities. If your driver's license is issued by

Alaska, American Samoa, Arizona, Kentucky, Louisiana, Maine, Massachusetts, Minnesota, Montana, New York, Oklahoma or the state of Washington, you must present an additional form of identification to enter the federal building. Acceptable alternative forms of identification include: Federal employee badges, passports, enhanced driver's licenses and military identification cards. In addition, you will need to obtain a property pass for any personal belongings you bring with you. Upon leaving the building, you will be required to return this property pass to the security desk. No large signs will be allowed in the building, cameras may only be used outside of the building and demonstrations will not be allowed on federal property for security reasons.

The EPA may ask clarifying questions during the oral presentations, but will not respond to the presentations at that time. Written statements and supporting information submitted during the comment period will be considered with the same weight as oral comments and supporting information presented at the public hearing. Commenters should notify Ms. Garrett if they will need specific equipment, or if there are other special needs related to providing comments at the hearings. Verbatim transcripts of the hearing and written statements will be included in the docket for the rulemaking. The EPA will make every effort to follow the schedule as closely as possible on

the day of the hearing; however, please plan for the hearing to run either ahead of schedule or behind schedule.

Again, a hearing will only be held if requested by [**insert date 5 days after date of publication in the federal register**].

Please contact Ms. Pamela Garrett at (919) 541-7966 or at [garrett.pamela@epa.gov](mailto:garrett.pamela@epa.gov) or visit

<http://www.epa.gov/airquality/cement/actions.html> to determine if a hearing will be held. If the EPA holds a public hearing, the EPA will keep the record of the hearing open for 30 days after completion of the hearing to provide an opportunity for submission of rebuttal and supplementary information.

**FOR FURTHER INFORMATION CONTACT:** Ms. Sharon Nizich, Minerals and Manufacturing Group, Sector Policies and Programs Division (D243-04), 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](mailto: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](mailto:yellin.patrick@epa.gov).

**SUPPLEMENTARY INFORMATION:** Organization of this Document. The following outline is provided to aid in locating information in the preamble.

- I. General Information
  - A. What is the source of authority for this action?
  - B. What entities are potentially affected by this action?
  - C. What should I consider as I prepare my comments for the EPA?
- II. Background
- III. Discussion of the Issues Under Consideration
- IV. Plan to Remove Affirmative Defense
- V. Solicitation of Public Comment on Proposed Amendments
- VI. Technical Corrections and Clarifications
- VII. Statutory and Executive Order Reviews
  - A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review
  - B. Paperwork Reduction Act
  - C. Regulatory Flexibility Act
  - D. Unfunded Mandates Reform Act
  - E. Executive Order 13132: Federalism
  - F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
  - G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks
  - H. Executive Order 13211: Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use
  - I. National Technology Transfer and Advancement Act
  - J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

**I. General Information**

A. What is the source of authority for this action?

The statutory authority for this action is provided by sections 111, 112 and 301 (a) of the Clean Air Act (CAA) as amended (42 U.S.C. sections 7411, 7412 and 7601 (a)).

B. What entities are potentially affected by this action?



Categories and entities potentially regulated by this proposed rule include:

**Table 1. NESHAP and Industrial Source Categories Affected By This Proposed Action**

| Category                         | NAICS code <sup>a</sup> | Examples of regulated entities        |
|----------------------------------|-------------------------|---------------------------------------|
| 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 could 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 action to a particular entity, contact the appropriate person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

C. What should I consider as I prepare my comments for the EPA?

Submitting CBI. Do not submit this information to the EPA through regulations.gov or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD-ROM that you mail to the EPA, mark the outside

of the disk or CD-ROM as CBI and then identify electronically within the disk or CD-ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket.

Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. Send or deliver information identified as CBI to only the following address: Ms. Sharon Nizich, c/o OAQPS Document Control Officer (Room C404-02), U.S. EPA, Research Triangle Park, NC 27711, Attention Docket ID No. EPA-HQ-OAR-2011-0817.

Docket. The docket number for this document is Docket ID No. EPA-HQ-OAR-2011-0817.

World Wide Web (WWW). In addition to being available in the docket, an electronic copy of this document will be posted on the WWW through the Technology Transfer Network (TTN) Web site. Following signature, the EPA will post a copy of this document at <http://www.epa.gov/airquality/cement/actions.html>. The TTN provides information and technology exchange in various areas of air pollution control.

## **II. Background**

In 2010, the EPA established 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 HAP (oHAP), and particulate matter (PM). These standards, established pursuant to section 112 (d) of the 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 for the amended standards. 78 FR 10006 (Feb. 12, 2013). All of these actions were upheld by the United States 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, also 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 plans to remove the affirmative defense regulatory text (40 CFR 63.1344) as part of the 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); see also Portland Cement Ass'n v. EPA, 665 F. 3d at 190-92 (upholding these standards). The EPA is proposing certain

technical changes to these standards as part of today's action. These changes do not affect the standards nor do they affect the expected cost of compliance.

### **III. Discussion of the Issues Under Consideration**

The EPA is proposing certain clarifying changes and corrections to the 2013 final rule. Specifically, these amendments would: (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 also proposes to clarify and correct 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 to reflect the effective date of the final rule for the NSPS.

In both the NSPS and the NESHAP, we are proposing 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 neither is intended to change the meaning of the final rule. We propose to 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 propose to 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. 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 propose to revise the definition of "Run Average" to clarify that the run average means the average of the recorded parameter values, not the 1-minute parameter values, for a run.

We are proposing to amend 40 CFR 63.1349(b)(8)(vii) that includes 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 proposing to add 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 solicit comment on this approach.

We also propose, under 40 CFR 63.1346(g)(3), to revise language related to the use of air pollution control devices (APCD). During startup, fuel feed is increased over time until normal operating temperatures are achieved. According to industry, during both startup and shutdown, the gas stream to

the APCD will be above 12-percent oxygen because the system is being operated at reduced fuel combustion rates. The minimal temperature at which oxygen content is below 12 percent and thereby assuring the stream is nonexplosive, is 300 degrees Fahrenheit. There are also issues with activated carbon and hydrated lime being injected into large ducts with low gas flows. With low gas flows, these materials fall out of the stream and accumulate in the duct work. 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> Therefore, we propose to require the APCD be turned on when the temperature of the APCD reaches 300 degrees Fahrenheit. We also propose to clarify that this section is applicable to HAP control devices, a requirement inadvertently missing from the promulgated rule.

We propose to modify the 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

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

low emissions levels (the majority of operating time) and improving QA/QC for brief periods of elevated emissions observed during "mill off" operation (the majority of HCl mass emissions).

We propose to 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 solicit comment on removal of this subsection.

We are also proposing to revise 40 CFR 63.1350(o) (Alternative Monitoring Requirements Approval), since language in this section, which does not allow an operator to apply for alternative THC monitoring, is now obsolete. Since there is now alternative monitoring allowed in 40 CFR 63.1350(j) due to the 2013 amendments (see 78 FR 10015), the exception is largely no longer needed. 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 are proposing the source be allowed to submit an application to the Administrator subject to the provisions of 40 CFR 63.1350(o)(1) through (6).



#### **IV. Plan to Remove Affirmative Defense**

As noted above, the United States Court of Appeals for the District of Columbia Circuit vacated the affirmative defense provisions contained in the Portland Cement NESHAP rule. (NRDC v. EPA, 749 F. 3d at 1063-64 (D.C. Cir. 2014)). The court found that the EPA lacked authority to establish an affirmative defense for private civil suits and held that under the CAA, the authority to determine civil penalty amounts in such cases lies exclusively with the courts, not the EPA. Specifically, the court found: "As the language of the statute makes clear, the courts determine, on a case-by-case basis, whether civil penalties are 'appropriate.'" Id. at 1063. In light of this decision, the affirmative defense provisions are null and void. The EPA plans to remove the regulatory affirmative defense provisions as part of the final technical corrections rule to reflect the court's vacatur. In the event that a source fails to comply with the applicable CAA section 112 standards as a result of a malfunction event, the EPA would determine an appropriate response based on, among other things, the good faith efforts of the source to minimize emissions during malfunction periods, including preventative and corrective actions, as well as root cause analyses, to ascertain and rectify excess emissions. The EPA would also consider whether the source's failure to comply with the CAA section 112 standard was, in fact, "sudden,

infrequent, not reasonably preventable" and was not instead "caused in part by poor maintenance or careless operation." 40 CFR 63.2 (definition of malfunction).

Further, to the extent the EPA files an enforcement action against a source for violation of an emission standard, the source can raise any and all defenses in that enforcement action and the federal district court will determine what, if any, relief is appropriate. The same is true for citizen enforcement actions. Similarly, the presiding officer in an administrative proceeding can consider any defense raised and determine whether administrative penalties are appropriate.

#### **V. Solicitation of Public Comment on Proposed Amendments**

At this time, the EPA is only proposing specific technical corrections and clarifications to the final rule's requirements, and is seeking comment on these corrections and clarifications. The EPA is not proposing any other revisions to the final rule. The EPA is seeking comment only on the specific proposed technical corrections proposed in this document. The EPA will not respond to any comments addressing any other issues or any other provisions of the final rule or any other rule. The EPA is not seeking comment on its plan to remove the affirmative defense regulatory text. The removal of the affirmative defense merely corrects the regulation to reflect that the provisions

have no legal effect in light of the court's vacatur and, thus, notice and comment is not required (See 5 U.S.C 553(b)(B)).

## **VI. Technical Corrections and Clarifications**

These technical corrections and clarifications are being proposed to correct inaccuracies and oversights that were promulgated in the final rule and to make the rule language consistent with provisions addressed through this reconsideration. We are soliciting comment only on whether the proposed changes provide the intended accuracy, clarity and consistency. These proposed changes are described in Tables 2 and 3 of this preamble. We request comment on all of these proposed changes.

**Table 2. Miscellaneous Proposed Technical Corrections to 40 CFR Part 60, Subpart F**

| <b>Section of Subpart F</b> | <b>Description of Proposed Correction</b>                                                                                                                             |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 40 CFR 60.61(f)             | Revise the definition of "operating day" to clarify that the 24 hour period beginning at 12:00 midnight covers the time the kiln produces any amount of clinker.      |
| 40 CFR 60.61(g)             | Add the definition of "rolling average" to clarify the length of time considered in developing the average.                                                           |
| 40 CFR 60.61(h)             | Add the definition of "run average" to clarify that the run average means the average of the recorded parameter values, not the 1-minute parameter values, for a run. |
| 40 CFR 60.62(a)(1)(i)       | Add the missing paragraph listing the current PM mission limit for kilns constructed, reconstructed or modified                                                       |

|                                             |                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                             | after August 17, 1971, but on or before June 16, 2008.                                                                                                                                                                                                                                                                                 |
| 40.CFR 60.62(a)(2)                          | Add the missing paragraph listing the opacity limit for kilns constructed, reconstructed, or modified after August 17, 1971 but on or before June 16, 2008                                                                                                                                                                             |
| 40 CFR 60.62(b)(1)(iii)                     | Add the missing paragraph listing the current PM emission limit for clinker coolers constructed, reconstructed or modified after August 17, 1971, but on or before June 16, 2008.                                                                                                                                                      |
| 40 CFR 60.62(b)(1)(iv)                      | Add the missing paragraph listing the opacity limit for clinker coolers constructed, reconstructed or modified after August 17, 1971, but on or before June 16, 2008.                                                                                                                                                                  |
| 40 CFR 60.62(d)                             | Revise this paragraph to clarify that you are subject to an applicable less stringent requirement until the time you are in compliance with an applicable more stringent requirement: Under NSPS, CAA section 111, you are not subject to two different subparts at the same time for a given pollutant.                               |
| 40 CFR 60.62(e)                             | Add a paragraph to clarify that the compliance date for all revised monitoring and recordkeeping requirements contained in the rule will be the same as listed in 40 CFR 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. |
| 40 CFR 60.63(c)(1)                          | Revise this paragraph to change reference paragraph from Section 60.8 to Sections 60.62(a)(1)(ii) and 60.62(a)(1)(iii).                                                                                                                                                                                                                |
| 40 CFR 60.63(c)(2)(i) and (iii)             | Revise these paragraphs to clarify that your PM continuous parameter monitoring system (CPMS) must provide either a milliamp or digital signal output.                                                                                                                                                                                 |
| 40 CFR 60.63(c)(3)                          | Revise this paragraph to clarify that your PM CPMS must provide either a milliamp or digital signal output.                                                                                                                                                                                                                            |
| 40 CFR 60.63(c)(4)(ii), (iii) and (iv), and | Revise these paragraphs to clarify that your PM CPMS must provide either a                                                                                                                                                                                                                                                             |

|                     |                                                                                                                                                                                                                                                              |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 60.63(c)(5) and (6) | milliamp or digital signal output, replace terms X <sub>1</sub> and Y <sub>2</sub> with subscripts X <sub>1</sub> and Y <sub>2</sub> ; and revise definition of the term X <sub>1</sub> to correct a typographical error, changing the word "you" to "your". |
| 40 CFR 60.63(c)(7)  | Revise this paragraph to clarify that for each performance test, you must conduct at least three separate test runs each while the mill is on and the mill is off.                                                                                           |
| 40 CFR 60.63(c)(7)  | Revise this paragraph to clarify that you must use a time weighted average of the results from three consecutive runs to determine compliance.                                                                                                               |
| 40 CFR 60.64(c)(2)  | Remove this paragraph since this is not an allowable action.                                                                                                                                                                                                 |

**Table 3. Miscellaneous, Proposed Technical Corrections to 40 CFR Part 63, Subpart LLL**

| <b>Section of Subpart LLL</b> | <b>Description of Proposed Correction</b>                                                                                                                                                                      |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 40 CFR 63.1341                | Revise the definition of "rolling average" to clarify the length of time considered in developing the average.                                                                                                 |
| 40 CFR 63.1341                | Revise the definition of "operating day" to clarify that the 24 hour period beginning at 12:00 midnight covers the time the kiln produces any amount of clinker.                                               |
| 40 CFR 63.1341                | Revise the definition of "run average" to clarify that the run average means the average of the recorded parameter values, not the 1-minute parameter values, for a run. Also add this definition to the NSPS. |
| 40 CFR 63.1343(a)             | Revise this paragraph to clarify that the 30-day period means all operating hours within 30 consecutive kiln operating days.                                                                                   |
| 40 CFR 63.1343(b)             | Revise footnote (1) of the table to clarify PM performance tests are based on three test runs using Method 5 or 5I.                                                                                            |

|                                                            |                                                                                                                                                                                                      |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 40 CFR 63.1343(b)                                          | Add footnote (1) to item number 4 in Table 1, which references the use of Method 5 or 5I for PM performance tests.                                                                                   |
| 40 CFR 63.1343(b) (2)                                      | Revise this paragraph to clarify that Equation 2 applies both to kilns that combine kiln exhaust, clinker cooler gas, and/or coal mill and alkali bypass exhaust.                                    |
| 40 CFR 63.1343(d)                                          | Revise this paragraph to include a reference to emission limits applicable until September 9, 2015.                                                                                                  |
| 40 CFR 63.1346(g) (3)                                      | Add the term "hazardous air pollutants" to this paragraph to clarify that referenced air pollution control devices are HAP control devices, and revise paragraph to include a temperature parameter. |
| 40 CFR 63.1348(a) (4) (iv) and (v)                         | Revise this paragraph to clarify that the requirement is based on a time weighted average.                                                                                                           |
| 40 CFR 63.1348(b) (1) (iii)                                | Revise this paragraph to clarify you may not use data recorded during control device malfunctions to report emissions or operating levels.                                                           |
| 40 CFR 63.1349(b) (1) (i) (C)                              | Remove "2 hour" reference in this paragraph, which was just an example and not a requirement for duration of test runs.)                                                                             |
| 40 CFR 63.1349(b) (1) (i), (ii), and (iii)                 | Revise paragraphs to clarify that your PM CPMS must provide either a milliamp or digital signal output.                                                                                              |
| 40 CFR 63.1349(b) (1) (iii) (C)                            | Revise definition of the term $X_1$ to correct a typographical error, changing the word "you" to "your."                                                                                             |
| 40 CFR 63.1349(b) (1) (iii) (D) through 63.1349(b) (1) (v) | Revise these paragraphs to clarify that your operating limit must be expressed in milliamps or the digital equivalent.                                                                               |
| 40 CFR 63.1349(b) (1) (vi)                                 | Revise this paragraph to clarify that for each performance test, you must conduct at least three separate test runs each while the mill is on and the                                                |

|                                         |                                                                                                                                                                                                         |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                         | mill is off, and also clarify that you must calculate a time weighted average.                                                                                                                          |
| 40 CFR<br>63.1349(b) (1) (viii)         | Revise Equation 8 to correct the label for combined hourly emission rate of PM from $E_c$ to $E_{cm}$ .                                                                                                 |
| 40 CFR<br>63.1349(b) (1) (ix)           | Revise this paragraph to clarify the time weighted average emissions are to be calculated using 40 CFR 63.1349(b) (1) (i).                                                                              |
| 40 CFR<br>63.1349(b) (3) (iii)          | Revise this paragraph to clarify that average temperatures must be calculated for each run instead of hourly temperatures.                                                                              |
| 40 CFR<br>63.1349(b) (4) (iii)          | Revise equation 9 to correct a typographical error by adding the terms, "Qab" and "Qcm" to the denominator.                                                                                             |
| 40 CFR<br>63.1349(b) (5) (ii)           | Revise definitions of "n" and "P" to clarify hours used in the calculation are for the previous 30 kiln operating day periods and include requirement that data must be based on qualified data.        |
| 40 CFR<br>63.1349(b) (6) (iii)          | Revise this paragraph to clarify that the SO <sub>2</sub> operating limit used must be based on an average recorded during the HCl stack test run that demonstrates compliance with the emission limit. |
| 40 CFR<br>63.1349(b) (6) (iv)           | Revise equation 11 to correct a typographical error by adding the terms, "Qab" and "Qcm" to the denominator.                                                                                            |
| 40 CFR 63.1349(b) (7)                   | Revise this paragraph to correct a typographical error by changing reference to paragraph (a) (4) to paragraph (b) (4).                                                                                 |
| 40 CFR<br>63.1349(b) (7) (ii) and (iii) | Revise these two paragraphs to clarify calculations are from the output recorded during the 3 hour test, which also must be from both the three raw mill on and three raw mill off test runs.           |
| 40 CFR                                  | Add this paragraph to clarify that if                                                                                                                                                                   |

|                                      |                                                                                                                                                                                                                                                                           |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 63.1349(b) (7) (v)                   | you have an inline coal mill, you must measure at the coal mill inlet and calculate a weighted average for all emission sources including the coal mill and the alkali bypass. Note adding this paragraph changes the subsequent numbering of paragraphs in this section. |
| 40 CFR<br>63.1349(b) (7) (vii)       | Revise this paragraph to add the word "that" for clarity regarding the demonstration that average organic HAP emission levels are at or above 75 percent of your emission limit.                                                                                          |
| 40 CFR<br>63.1349(b) (7) (viii) (B)  | Revise this paragraph to remove a comma after the word "value."                                                                                                                                                                                                           |
| 40<br>CFR63.1349(b) (7) (xii)        | Remove the term "highest load or capacity" since the load level is already defined under the performance testing requirements, general provisions, 40 CFR 60.8(c).                                                                                                        |
| 40 CFR 63.<br>1349(b) (7) (xiii) (B) | Clarify the compliance test is based on a 30 month test instead of an annual test.                                                                                                                                                                                        |
| 40 CFR 63.1349(b) (8)                | Revise this paragraph to clarify that you must establish an SO <sub>2</sub> operating limit equal to the average recorded output during the HCl stack test.                                                                                                               |
| 40 CFR<br>63.1349(b) (8) (ii)        | Revise this paragraph to clarify that the average SO <sub>2</sub> concentration must be calculated from the recorded output instead of the 1-minute averages.                                                                                                             |
| 40 CFR 63.<br>1349(b) (8) (vi)       | Revise this paragraph to correct a typographical error by replacing "THC" with "HCl" when calculating the limit as the weighted average of HCl levels measured.                                                                                                           |
| 40 CFR<br>63.1349(b) (8) (vii)       | Revise this paragraph to include a proposed scaling alternative if the average of the three HCl compliance tests determines that the HCl emissions are below 75 percent of the HCl emissions limit.                                                                       |
| 40 CFR<br>63.1349(b) (8) (x) (B)     | Revise this paragraph to replace "annual" with "periodic" which is more                                                                                                                                                                                                   |



|                          |                                                                                                                                                                                                                                                                         |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          | relevant to the timing of the performance test.                                                                                                                                                                                                                         |
| 40 CFR 63.1350(a)(2)     | Remove this provision since it no longer applies. See 78 FR 10015.                                                                                                                                                                                                      |
| 40 CFR 63.1350(i)(1)     | Revise this paragraph to clarify that both Performance Specification 8 and Performance Specification 8a are acceptable performance specifications for compliance with this paragraph.                                                                                   |
| 40 CFR 63.1350(i)(2)     | Revise this paragraph to clarify that performance tests on alkali bypass and coal mill stacks must be repeated every 30 months instead of annually.                                                                                                                     |
| 40 CFR 63.1350(j)        | Revise this paragraph to clarify that both Performance Specification 8 and Performance Specification 8a are acceptable performance specifications for compliance with this paragraph.                                                                                   |
| 40 CFR 63.1350(k)(2)     | Revise this paragraph to clarify that you must use one of the three options, not one of the two options in paragraphs (k)(2)(i) and (ii) of this section to quality assure data measured above the span value.                                                          |
| 40 CFR 63.1350(k)(5)(iv) | Revise this paragraph to add the alkali bypass as being subject to this requirement.                                                                                                                                                                                    |
| 40 CFR 63.1350(l)        | Revise paragraphs in this section to clarify the measurement span value range is 0 to 10 ppmvw, and to add one more option in paragraphs (l)(1)(ii)(A through C) to quality assure data measured above the span value.                                                  |
| 40 CFR 63.1350(n)        | Amend this paragraph to clarify that this section is applicable when use of a CEMS is required.                                                                                                                                                                         |
| 40 CFR 63.1350(n)(1)     | Amend this paragraph to remove reference to the location for installing each sensor of the flow rate monitoring system relative to the sampling location of the PM CEMS, since the sensor of each flow rate monitoring system is not applicable for PM in this section. |

|                                             |                                                                                                                                                         |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 40 CFR 63.1350 (o)                          | Remove the phrase, "except for emission standards for THC" from the section.                                                                            |
| 40 CFR 63.1350(o)(3)                        | Revise this paragraph to correct a typographical error by replacing the term "(m)(3)(i)" with "(o)(3)(i)."                                              |
| 40 CFR 63.1354(b)(9)                        | Revise this paragraph to clarify reports to be submitted semiannually to the Compliance and Emissions Data Reporting Interface (CEDRI).                 |
| 40 CFR<br>63.1354(b)(9)(i)                  | Revise this paragraph to clarify intent of section and to correct a typographical error by replacing the reference "1344" with "1346."                  |
| 40 CFR<br>63.1354(b)(9)(ii)                 | Revise this paragraph to clarify intent of section and to correct a typographical error by replacing the reference "1350(f)(7)" with "1350(g)(1)(iii)." |
| 40 CFR<br>63.1354(b)(9)(iii)                | Revise this paragraph to clarify intent of section and to correct a typographical error by replacing the reference "63.1344(c)" with "63.1346(c)(2)."   |
| 40 CFR<br>63.1354(b)(9)(iv)                 | Revise this paragraph to clarify intent of section and to correct a typographical error by replacing the reference "63.1350(i)" with "63.1347(a)(3)."   |
| 40 CFR<br>63.1354(b)(9)(v)                  | Revise this paragraph to clarify intent of section and to correct a typographical error by replacing the reference "63.1350(a)" with "63.1347(a)."      |
| 40<br>CFR63.1354(b)(9)(vi)                  | Revise this paragraph to clarify that Dioxin/Furans and PM CPMS monitoring systems are subject to this section.                                         |
| 40<br>CFR63.1354(b)(9)(viii)<br>through (x) | Add these paragraphs of requirements listed in the NSPS, 40 CFR 60.64, but were inadvertently left out of 40 CFR 63.1354.                               |
| 40 CFR 63.1356                              | Revise this section to clarify that you are subject to an applicable less stringent requirement until the time                                          |

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|                |                                                                                                                                                                                     |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | you are in compliance with an applicable more stringent requirement: Under NSPS, Section 111, you are not subject to two different subparts at the same time for a given pollutant. |
| 40.CFR 63.1357 | Remove this provision since it no longer applies: PM CEMS was replaced with PM CPMS in the February 2013 amendments. See 78 FR 10007.                                               |

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## **VII. Statutory and Executive Order Reviews**

### 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" under the terms of Executive Order 12866 (58 FR 51735, October 4, 1993) and is therefore not subject to review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011).

### B. Paperwork Reduction Act

This action does not impose any new information collection burden. The EPA is not proposing any new information collection activities (e.g., monitoring, reporting, recordkeeping) as part of this action. The Office of Management and Budget (OMB) has previously approved the information collection requirements contained in the existing regulations under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. and has assigned OMB control number 2060-0416. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9.

### C. Regulatory Flexibility Act

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

For purposes of assessing the impacts of this action on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this proposed rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. This proposed rule will not impose any new requirements on small entities. We continue to be interested in

the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts.

#### D. Unfunded Mandates Reform Act

This action does not contain a federal mandate that may result in expenditures of \$100 million or more for state, local and tribal governments, in the aggregate, or the private sector in any one year. This action proposes minor changes to the rule to correct and clarify technical issues raised by stakeholders and, thus, does not exceed estimated costs developed for the final rule (refer to final Technical Support Document EPA-HQ-OAR-2011-0817-0845). Thus, this rule is not subject to the requirements of section 202 and 205 of the UMRA. This rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. This action contains no requirements that apply to such governments, imposes no obligations upon them and will not result in expenditures by them of \$100 million or more in any one year or incur any disproportionate impacts on them.

#### 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, as specified in Executive Order 13132. This action seeks comment on proposed technical corrections to the NESHAP for Portland Cement Manufacturing sources located at major sources of HAP without proposing any changes to the rule. Thus, Executive Order 13132 does not apply to this action.

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

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

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). This action will not have substantial direct effects on tribal governments, on the relationship between the federal government and Indian tribes or on the distribution of power and responsibilities between the federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to this action.

The EPA specifically solicits additional comment on this proposed action from tribal officials.

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

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

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

This action is not subject to Executive Order 13211 (66 FR 28355 (May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

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

This proposed rule does not involve technical standards. Therefore, the EPA is not considering the use of any VCS.

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

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

An analysis of demographic data was prepared for the 2010 final rule and can be found in the docket for that rulemaking (See docket item EPA-HQ-OAR-2011-0817). The impacts of the 2010 rule, which assumed full compliance, are expected to be unchanged as a result of this action. Therefore, beginning from the date of full compliance, the EPA has determined that the proposed rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it increases the level of environmental protection for all affected populations without having any



disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income populations. In addition, the full benefits of this final rule will not result until 2015 due to the final amended compliance date but the demographic analysis showed that the average of populations in close proximity to the sources, and thus most likely to be affected by the sources, were similar in demographic composition to national averages.

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

**Page 34 of 95**

**List of Subjects**

40 CFR Part 60

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

40 CFR Part 63

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

Dated: November 4, 2014.

Gina McCarthy,  
Administrator.

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

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

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

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

**Subpart F-- [Amended]**

2. Section 60.61 is amended by:

- a. Revising paragraph (f).
- b. 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 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; a thirty-day rolling average period requires

calculation of a new average value each day that includes the average emissions over the previous thirty days divided by the total production during these same periods. A twelve month rolling average stipulates a new average value calculated each month that includes the average emissions over the previous twelve months divided by the total production during the same periods.

(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), (a)(2), (b)(1)(iii), (b)(1)(iv), 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.

\* \* \* \* \*

(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), and (c)(7) 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), 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.

\* \* \* \* \*

(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) \* \* \*

$X_1$  = 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 with equation 2.

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

Where:

R = The relative lb/ton clinker per milliamp for your PM CPMS.

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

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

z = the milliamp 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 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 highest load or capacity 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) \* \* \*

\* \* \* \* \*

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

**§60.64 Test methods and procedures.**

\* \* \* \* \*

(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 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; a thirty-day rolling average period requires calculation of a new average value each day that includes the average emissions over the previous thirty days divided by the total production during these same periods. A twelve month rolling average stipulates a new average value calculated each month that includes the average emissions over the previous twelve months divided by the total production during the same periods.

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

\* \* \* \* \*

8. Section 63.1343 is amended by revising paragraphs (a), Table 1 in paragraph (b)(1), (b)(2), and (d) 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) (1) \* \* \*

**Table 1—Emissions Limits for Kilns, Clinker Coolers, Raw Material Dryers, Raw and Finish Mills**

|  | <b>If your<br/>source</b> | <b>And the<br/>operating</b> | <b>And if<br/>is</b> | <b>Your emissions<br/>limits are:</b> | <b>And the<br/>units of</b> | <b>The<br/>oxygen</b> |
|--|---------------------------|------------------------------|----------------------|---------------------------------------|-----------------------------|-----------------------|
|--|---------------------------|------------------------------|----------------------|---------------------------------------|-----------------------------|-----------------------|

|    | is a<br>(an):                 | mode is:                   | located<br>at a:           |                                                                                                | the<br>emissions<br>limit<br>are:                                          | correction<br>factor is:               |
|----|-------------------------------|----------------------------|----------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------|
| 1. | Existing<br>kiln              | Normal<br>operation        | Major<br>or area<br>source | PM <sup>1</sup> 0.07<br>D/F <sup>2</sup> 0.2<br>Mercury 55<br>THC <sup>3</sup> <sup>4</sup> 24 | lb/ton<br>clinker<br>ng/dscm<br>(TEQ)<br>lb/MM<br>tons<br>clinker<br>ppmvd | NA.<br>7 percent.<br>NA.<br>7 percent. |
| 2. | Existing<br>kiln              | Normal<br>operation        | Major<br>source            | HCl 3                                                                                          | ppmvd                                                                      | 7<br>percent.                          |
| 3. | Existing<br>kiln              | Startup<br>and<br>shutdown | Major<br>or area<br>source | Work practices<br>(63.1346(f))                                                                 | NA                                                                         | NA.                                    |
| 4. | New kiln                      | Normal<br>operation        | Major<br>or area<br>source | PM <sup>1</sup> 0.02<br>D/F <sup>2</sup> 0.2<br>Mercury 21<br>THC <sup>3</sup> <sup>4</sup> 24 | lb/ton<br>clinker<br>ng/dscm<br>(TEQ)<br>lb/MM<br>tons<br>clinker<br>ppmvd | NA.<br>7 percent.<br>NA<br>7 percent.  |
| 5. | New kiln                      | Normal<br>operation        | Major<br>source            | HCl 3                                                                                          | ppmvd                                                                      | 7<br>percent.                          |
| 6. | New kiln                      | Startup<br>and<br>shutdown | Major<br>or area<br>source | Work practices<br>(63.1346(f))                                                                 | NA                                                                         | NA.                                    |
| 7. | Existing<br>clinker<br>cooler | Normal<br>operation        | Major<br>or area<br>source | PM 0.07                                                                                        | lb/ton<br>clinker                                                          | NA.                                    |
| 8. | Existing<br>clinker<br>cooler | Startup<br>and<br>shutdown | Major<br>or area<br>source | Work practices<br>(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> <sup>4</sup> 24 | 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 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 the 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 76 FR 2836 until September 9, 2015.

\* \* \* \* \*

9. Section 63.1346 is amended by revising paragraph (g)(3) to  
read as follows:

**§ 63.1346 Operating limits for kilns**

\* \* \* \* \*

(g) \* \* \*

(3) All air pollution control devices that control hazardous air pollutants must be turned on and operating at the time the gas stream to the air pollution control device reaches 300 degrees Fahrenheit. Temperature content to be measured at the inlet of the baghouse or ESP every fifteen minutes during startup until all HAP control devices are operating, and every fifteen minutes during shutdown until any activated carbon or lime injection systems are not operating.

\* \* \* \* \*

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

**§ 63.1348 Compliance requirements.**

\* \* \* \* \*

(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 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.

\* \* \* \* \*

10. Section 63.1349 is amended by revising paragraph (b) to read as follows:

**§ 63.1349 Performance testing requirements.**

\* \* \* \* \*

(b)(1) *PM emissions tests.* The owner or operator of a kiln 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 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 (a)(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 (a)(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, 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 with Equation 4.

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

Where:

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

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

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

z = The milliamp 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 (1)(i).

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 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 highest load or capacity 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 (D)(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 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.

(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 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 (b)(2)(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 § 63.1344(b).

(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:

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

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 µg.

n = Number of kiln operating hours in the previous 30 kiln operating day period where both C and Qi 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(l)(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(l)(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(l)(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 a HCl CEMS. Hourly HCl concentration data must be obtained according to § 63.1350(l).

(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(l)(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:

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

Where:

Cks = Kiln stack concentration (ppmvd).

Qab = Alkali bypass flow rate (volume/hr).

Cab = Alkali bypass concentration (ppmvd).

Qcm = Coal mill flow rate (volume/hr).

Ccm = Coal mill concentration (ppmvd).

Qks = 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 (a)(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 you are required to measure at the coal mill inlet, you must also measure oHAP at the coal mill inlet and calculate a weighted average 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 (a)(7)(vii) and (viii) 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 (a) (7) (vii) (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.

$$T_1 = \left( \frac{9}{Y_1} \right) \cdot X_1 \quad (\text{Eq. 13})$$

Where:

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

$Y_1$  = The average organic HAP concentration from Eq. 12, ppmv.

$X_1$  = 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.

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

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.



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

Where:

$Hp_{vi}$  = 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(l)(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 must calculate an operating limit by establishing a relationship of SO<sub>2</sub> CEMS signal to your HCl concentration corrected to 7% 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 (a)(1)(iii)(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 (a)(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 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<sub>1</sub> = The SO<sub>2</sub> CEMS data points for the three runs constituting the performance test.

Y<sub>1</sub> = The HCl emission concentration expressed as ppmv corrected to 7% 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% O<sub>2</sub>, determine a relationship of ppm HCl corrected to 7% 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% O<sub>2</sub> per ppm SO<sub>2</sub> for your SO<sub>2</sub> CEMS.

Y<sub>1</sub> = The three run average HCl concentration corrected to 7% O<sub>2</sub>.

X<sub>1</sub> = 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% 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% 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 18 to determine the 30 kiln operating day average.

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

(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 highest load or capacity 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 highest load or capacity 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. and

(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.

\* \* \* \* \*

11. Section 63.1350 is amended by:

- a. Removing and reserving paragraph (a)(2).
- b. Revising paragraphs (i)(1) through (i)(2), (j), (k)(2), (k)(2)(ii), (l), (n), (n)(1), (o), and (o)(3).
- c. Adding paragraphs (k)(2)(iii) and (k)(2)(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.

(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 (m)(4) of this section. You must also develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (p)(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.

\* \* \* \* \*

(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. 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 quality assured using the procedure established in (k)(2)(iii).

(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 concentration 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. 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.

(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 (1)(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 (1)(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. If you install and operate an HCl CEMS 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 the HCl CEMS using the procedure of appendix F to part 60 of this chapter applicable to the performance specification. 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 HCl CEMS other than those installed and certified under PS 15.

(i) You must use a measurement span value for any HCl CEMS of 0-10 ppmvw. 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  $\mu\text{g}/\text{m}^3$  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 (I)(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. 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 quality assured using the procedure established in (I)(1)(C).

(C) Quality assure any data above the span value established in paragraph (1)(1)(i) of this section using the following procedure. Any time the average measured concentration of HCl

exceeds or is expected to exceed the span value for greater than two hours you must, within a period 24 hours before or after the `above span' period, 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 100 percent of the highest expected hourly concentration measured during the period of measurements above span, and must be introduced at the probe. 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) below. If the `above span' calibration is conducted during the period when measured emissions are above span and there is a failure to collect the required minimum number of data points 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.



(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.

\* \* \* \* \*

(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:

\* \* \* \* \*

12. 63.1354 is amended by:

- a. Revising paragraphs (b)(9) through (b)(9)(vi).
- b. Adding paragraphs (b)(9)(viii) through (b)(9)(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 website (<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 (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) and (b)(9)(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) and (b)(9)(viii) of this section in paper format.

\* \* \* \* \*

13. 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.

**§63.1357 [Remove and reserve]**

14. Remove and reserve §63.1357.