(EPA), Region 8, Mailcode 8P-AR, 999 18th Street, Suite 300, Denver, Colorado 80202–2466. Such deliveries are only accepted Monday through Friday, 8 a.m. to 4:55 p.m., excluding Federal holidays. Special arrangements should be made for deliveries of boxed information.

Please see the direct final rule which is located in the Rules Section of this **Federal Register** for detailed instructions on how to submit comments.

FOR FURTHER INFORMATION CONTACT: Amy Platt, Environmental Protection Agency, Region 8, 999 18th Street, Suite 300, Denver, CO 80202–2466, (303) 312–6449, *platt.amy@epa.gov.*

SUPPLEMENTARY INFORMATION: See the information provided in the Direct Final action of the same title which is located in the Rules and Regulations section of this **Federal Register**.

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

Dated: July 14, 2005.

Max H. Dodson,
Acting Regional Administrator, Region 8.
[FR Doc. 05–15608 Filed 8–5–05; 8:45 am]
BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 60 and 63

OAR–2003–0074

[FRL–7947–5]

RIN 2060–AG21

Performance Specification 16 for Predictive Emission Monitoring Systems and Amendments to Testing and Monitoring Provisions

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency is proposing performance specifications (PS) that evaluate the acceptability of predictive emission monitoring systems (PEMS) when used on stationary sources. This PS is needed to provide sources and regulatory agencies with performance criteria for evaluating this new technology. The intended effect of this action is to establish standardized performance requirements that will be used to evaluate candidate PEMS uniformly. The affected industries and their Standard Industrial Classification codes are listed under **SUPPLEMENTARY INFORMATION**. In addition, we are proposing to make minor amendments to various testing provisions in the New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants for Source Categories (MACT) to correct inadvertent errors, make needed updates, and add flexibility.

DATES: *Comments:* Submit comments on or before October 7, 2005.

Public Hearing: If anyone contacts us requesting to speak at a public hearing by August 23, 2005, we will hold a public hearing on September 7, 2005.

ADDRESSES: *Comments.* Comments may be submitted electronically, by mail, by facsimile, or through hand delivery/courier. Follow the detailed instructions as provided in Unit IB of the **SUPPLEMENTARY INFORMATION** section.

Public Hearing. If a public hearing is held, it will be held at 10 a.m. in the EPA Auditorium, Research Triangle Park, North Carolina, or at an alternate site nearby.

Docket. Docket No. OAR–2003–0074, contains information relevant to this rule. You can read and copy it between 8:30 a.m. and 5:30 p.m., Monday

through Friday, (except for Federal holidays), at the U.S. Environmental Protection Agency, EPA Docket Center, EPA West, Room 108, 1301 Constitution Ave., Washington, DC 20004; telephone (202) 566–1742. The docket office may charge a reasonable fee for copying.

FOR FURTHER INFORMATION CONTACT: Foston Curtis, Emission Measurement Center, Mail Code D205–02, Emissions, Monitoring, and Analysis Division, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone (919) 541–1063; facsimile number (919) 541–0516; electronic mail address *curtis.foston@epa.gov.*

SUPPLEMENTARY INFORMATION:

General Information

A. Affected Entities

Predictive emission monitoring systems are not currently required in any Federal rule. However, they may be used under the NSPS to predict nitrogen oxides emissions from small industrial, commercial, and institutional steam generating units. In some cases, PEMS have been approved as alternatives to CEMS for the initial 30-day compliance test at these facilities. Various State and Local regulations are incorporating PEMS as an emission monitoring tool. The major entities that are potentially affected by Proposed Performance Specification 16 and amendments to the subparts are included in the following tables.

TABLE 1.—MAJOR ENTITIES POTENTIALLY AFFECTED BY THIS ACTION FOR PROPOSED PERFORMANCE SPECIFICATION 16 AND FOR PETROLEUM REFINERY NSPS, KRAFT PULP MILLS NSPS, MUNICIPAL SOLID WASTE LANDFILL NSPS

Examples of regulated entities	SIC codes	NAICS codes
Industrial, Commercial, Institutional Steam Generating Units	3569	332410
Stationary Gas Turbines	3511	333611
Petroleum Refineries	2911	324110
Kraft Pulp Mills	2621	322110
Municipal Solid Waste Landfills	4953	562213
Surface Coatings	3479	336111, 336112
Coke Ovens	3312	33111111

TABLE 2.—MAJOR ENTITIES POTENTIALLY AFFECTED BY THIS ACTION FOR AMENDMENTS TO PERFORMANCE SPECIFICATION 11 AND PROCEDURE 2, APPENDIX F, PART 60

Examples of regulated entities	SIC codes	NAICS codes
Portland Cement Manufacturing	3559	333298

TABLE 2.—MAJOR ENTITIES POTENTIALLY AFFECTED BY THIS ACTION FOR AMENDMENTS TO PERFORMANCE SPECIFICATION 11 AND PROCEDURE 2, APPENDIX F, PART 60—Continued

Examples of regulated entities	SIC codes	NAICS codes
Hazardous Waste Incinerators	4953	562211

TABLE 3.—MAJOR ENTITIES POTENTIALLY AFFECTED BY THIS ACTION FOR AMENDMENTS TO PERFORMANCE SPECIFICATION 2, APPENDIX B, PART 60

Examples of regulated entities	SIC codes	NAICS codes
Fossil Fuel Steam Generators	3569	332410
Electric Generating Units	3569	332410
Industrial/Commercial/Institutional Steam Generating Units	3569	332410
Small Industrial/Commercial/Institutional Steam Generating Units	3569	332410
Municipal Waste Combustors	4953	562213
Nitric Acid Plants	2873	525311
Sulfuric Acid Plants	2819	325188
Petroleum Refineries	2911	324110
Primary Copper Smelters	3331	331411
Primary Zinc Smelters	3339	331419
Primary Lead Smelters	3339	331419

TABLE 4.—MAJOR ENTITIES POTENTIALLY AFFECTED BY THIS ACTION FOR AMENDMENTS TO METHOD 24, APPENDIX A, PART 60

Examples of regulated entities	SIC codes	NAICS codes
Rubber Tire Manufacturing	3011	326211
Flexible Vinyl and Urethane Coating and Printing	2754	323111
Magnetic Tape Coating Facilities	3695	334613
Surface Coating of Plastic Parts for Business Machines	3479	326199
Polymetric Coating of Supporting Substrates Facilities	2824	332812
Surface Coating of Metal Furniture	2514	337124
Automobile and Light Duty Truck Surface Coating	5012	336111
Graphic Arts Industry: Publication Rotogravure Printing	2754	323111
Pressure Sensitive Tape and Label Surface Coating Operations	2672	322222
Indusrial Surface Coating: Large Appliances	5064	421620
Metal Coil Surface Coating	3479	335931
Beverage Can Surface Coating	3411	332812
Aerospace	3721	33641
Boat and Ship Manufacturing and Repair Surface Coating	3731, 3732	....
Fabric Printing, Coating and Dyeing	2759	....
Leather Finishing	3111	....
Miscellaneous Coating Manufacturing	3479	....
Miscellaneous Metal Parts and Products	3479	....
Paper and other Web Surface Coating	2741	
Plastic Parts Surface Coating	3479	
Printing and Publishing Surface Coating	2741	....
Wood Building Products	2499	....
Wood Furniture	2511, 2521	....

These tables are not intended to be exhaustive, but rather provides an example of entities that may be affected by this action. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

B. How Can I Get Copies of This Document and Other Related Information?

1. Docket. EPA has established an official public docket for this action under Docket ID No. OAR–2003–0074. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Documents in the official public docket are listed in the index list in EPA's electronic public docket and comment system, EDOCKET. Documents may be available either electronically or in hard copy. Electronic documents may be viewed through EDOCKET. Hard copy documents may be viewed at Docket

OAR–2003–0074, EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC 20460; telephone (202) 566–1742. The docket facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744.

2. Electronic Access. You may access this **Federal Register** document electronically through the EPA Internet under the ''**Federal Register**'' listings at *http://www.epa.gov/fedrgstr/* or you can go to the federal wide eRulemaking site at *http://www.regulations.gov.*

An electronic version of the public docket is available through EDOCKET. You may use EPA Dockets at *http://www.epa.gov/edocket/* to submit or view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Once in the system, select ''search,'' then key in the appropriate docket identification number.

Certain types of information will not be placed in the EPA Dockets. Information claimed as CBI and other information whose disclosure is restricted by statute, which is not included in the official public docket, will not be available for public viewing in EPA's electronic public docket. The EPA's policy is that copyrighted material will not be placed in EPA's electronic public docket but will be available only in printed, paper form in the official public docket. To the extent feasible, publicly available docket materials will be made available in EPA's electronic public docket. When a document is selected from the index list in EDOCKET, the system will identify whether the document is available for viewing in EPA's electronic public docket. Publicly available docket materials that are not available electronically may be viewed at the docket facility identified in Unit I.B. The EPA intends to work towards providing electronic access to all of the publicly available docket materials through EPA's electronic public docket.

For public commenters, it is important to note that EPA's policy is that public comments, whether submitted electronically or on paper, will be made available for public viewing in EPA's electronic public docket as EPA receives them and without change, unless the comment contains copyrighted material, CBI, or other information whose disclosure is restricted by statute. When EPA identifies a comment containing copyrighted material, EPA will provide a reference to that material in the version of the comment that is placed in EPA's electronic public docket. The entire printed comment, including the copyrighted material, will be available in the public docket.

Public comments submitted on computer disks that are mailed or delivered to the docket will be transferred to EPA's electronic public docket. Public comments that are mailed or delivered to the Docket will be scanned and placed in EPA's electronic public docket. Where practical, physical objects will be photographed, and the photograph will be placed in EPA's electronic public docket along with a brief description written by the docket staff.

For additional information about EPA's electronic public docket, visit EDOCKET online or see 67 FR 38102, May 31, 2002.

C. How and to Whom Do I Submit Comments?

You may submit comments electronically, by mail, by facsimile, or through hand delivery/courier. To ensure proper receipt by EPA, identify the appropriate docket identification number in the subject line on the first page of your comment. Please ensure that your comments are submitted within the specified comment period. Comments received after the close of the comment period will be marked ''late.'' The EPA is not required to consider these late comments. However, late comments may be considered if time permits.

1. *Electronically.* If you submit an electronic comment as prescribed below, EPA recommends that you include your name, mailing address, and an e-mail address or other contact information in the body of your comment. Also include this contact information on the outside of any disk or CD ROM you submit and in any cover letter accompanying the disk or CD ROM. This ensures that you can be identified as the submitter of the comment and allows EPA to contact you in case EPA cannot read your comment due to technical difficulties or needs further information on the substance of your comment. The EPA's policy is that EPA will not edit your comment, and any identifying or contact information provided in the body of a comment will be included as part of the comment that is placed in the official public docket and made available in EPA's electronic public docket. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

i. *EDOCKET.* Your use of EPA's electronic public docket to submit comments to EPA electronically is EPA's preferred method for receiving comments. Go directly to EDOCKET at *http://www.epa.gov/edocket*, and follow the online instructions for submitting comments. To access EPA's electronic public docket from the EPA Internet Home Page, select ''Information Sources,'' ''Dockets,'' and ''EDOCKET.'' Once in the system, select ''search,'' and then key in Docket ID No. OAR–2003–0074. The system is an ''anonymous access'' system, which means EPA will not know your identity, e-mail address, or other contact information unless you provide it in the body of your comment.

ii. *http://www.regulations.gov.* Electronic comments may also be sent through the federal wide eRulemaking web site at *http://www.regulations.gov.*

iii. *E-mail.* Comments may be sent by electronic mail (e-mail) to *a-and-r-docket@epamail.gov*, Attention: Docket ID No. OAR–2003–0074. In contrast to EPA's electronic public docket, EPA's e-mail system is not an ''anonymous access'' system. If you send an e-mail comment directly to the Docket without going through EPA's electronic public docket, EPA's e-mail system automatically captures your e-mail address. E-mail addresses that are automatically captured by EPA's e-mail system are included as part of the comment that is placed in the official public docket and made available in EPA's electronic public docket.

iv. *Disk or CD ROM.* You may submit comments on a disk or CD ROM that you mail to the mailing address identified in Unit I.C.2. These electronic submissions will be accepted in WordPerfect or ASCII file format. Avoid the use of special characters and any form of encryption.

2. *By Mail.* Send duplicate copies of your comments to: ''Performance Specification 16 for Predictive Emission Monitoring Systems,'' Environmental Protection Agency, Mail Code 6102T, 1200 Pennsylvania Ave., NW., Washington, DC, 20460, Attention Docket ID No. OAR–2003–0074.

3. *By Hand Delivery or Courier.* Deliver your comments to: EPA Docket Center, EPA West, Room 108, 1301 Constitution Ave., NW., Washington, DC 20460, Attention: Docket ID No. OAR–2003–0074. Such deliveries are only accepted during the Docket's normal hours of operation as identified in Unit I.B.1.

4. *By Facsimile.* Fax your comments to: 202–566–1741, Attention: Docket ID. No. OAR–2003–0074.

D. How Should I Submit CBI to the Agency?

Do not submit information that you consider to be CBI electronically through EPA's electronic public docket or by e-mail. Send or deliver information identified as CBI only to the docket address to the attention of Docket ID No. OAR–2003–0074. You may claim information that you submit to EPA as CBI by marking any part or all of that information as CBI (if you submit CBI on disk or CD ROM, 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 CBI). Information so

marked will not be disclosed except in accordance with procedures set forth in 40 CFR Part 2.

In addition to one complete version of the comment that includes any 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 and EPA's electronic public docket. If you submit the copy that does not contain CBI on disk or CD ROM, mark the outside of the disk or CD ROM clearly that it does not contain CBI. Information not marked as CBI will be included in the public docket and EPA's electronic public docket without prior notice. If you have any questions about CBI or the procedures for claiming CBI, please consult the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

E. What Should I Consider as I Prepare My Comments for EPA?

You may find the following suggestions helpful for preparing your comments:

1. Explain your views as clearly as possible.

2. Describe any assumptions that you used.

3. Provide any technical information and/or data you used that support your views.

4. If you estimate potential burden or costs, explain how you arrived at your estimate.

5. Provide specific examples to illustrate your concerns.

6. Offer alternatives.

7. Make sure to submit your comments by the comment period deadline identified.

8. To ensure proper receipt by EPA, identify the appropriate docket identification number in the subject line on the first page of your response. It would also be helpful if you provided the name, date, and Federal Register citation related to your comments.

Outline. The information presented in this preamble is organized as follows:

I. Background

Today we are proposing Performance Specification 16 for Predictive Emission Monitoring Systems to Appendix B, Part 60. Predictive emission monitoring systems are a new and innovative tool for monitoring pollutant emissions without the traditional hardware analyzers. The PEMS predicts a unit's emissions indirectly using process parameters that have a known relationship to pollutant concentration. Their principle of operation can range from a relatively simple relationship based on combustion principles to the more complex computer models that are trained to predict emissions using neural networks technology. They have been used for monitoring purposes at industrial, commercial, and institutional steam-generating units, gas turbines, internal combustion engines, and other combustion processes where process parameters have a predictable relationship to emissions. We are also proposing to make amendments to the testing and monitoring provisions of various NSPS and MACT rules.

II. Summary of Proposed Performance Specification 16

A. What Is the Purpose of PS–16?

The purpose of PS–16 is to establish the initial installation and performance procedures that candidate PEMS must meet to be acceptable for use. The specification stipulates equipment design and documentation, location, and addresses initial and periodic performance tests of the PEMS.

B. Who Must Comply With PS–16?

If adopted as a final rule, all PEMS that will be used to comply with 40 CFR Parts 60, 61, and 63 will be required to comply with PS–16. In addition to new PEMS that are installed after the effective date of PS–16, other PEMS may also be required to comply with PS–16 at the discretion of the applicable regulatory agency or permit writer.

C. What Are the Basic Requirements of PS–16?

The PS–16 requires owners and operators of affected PEMS to: (1) Select a PEMS that satisfies basic design criteria; (2) verify and document their PEMS; (3) validate their PEMS against a reference method using prescribed statistical procedures prior to placing it into operation; and (4) periodically reassess their PEMS's performance. The performance requirements for PS–16 follow the general performance requirements for continuous emission monitoring systems (CEMS) in Appendix B of Part 60. A relative accuracy (RA) test of the PEMS against a reference method is the primary assessment of accuracy. The number of runs prescribed for the RA test will depend upon the underlying regulation.

D. What Is the Rationale for the Performance Criteria in PS–16?

The Agency is allowing, but not requiring, PEMS use in a number of recently-promulgated rules, and a number of facilities regulated by State and Local agencies are considering their use. Past EPA approvals of PEMS were based on criteria provided in the draft performance specifications on the Agency's Emission Measurement Center website. In other cases, performance specifications developed by State or Local Agencies were used to evaluate the PEMS. We are proposing PS–16 to provide regulatory agencies a uniform procedure for assessing the capabilities of this new monitoring tool.

III. Summary of Other Amendments

A. Petroleum Refinery (Subpart J) NSPS

In the petroleum refinery NSPS in § 60.106(b)(3) the equation for determining the coke burnoff rate is being corrected.

B. Kraft Pulp Mill (Subpart BB) NSPS

In the monitoring provisions of the kraft pulp mills NSPS in § 60.284, a paragraph requiring continuous emission monitors be subject to the quality assurance provisions of Appendix F that was added by mistake in an October 17, 2000 amendment is being deleted.

C. Municipal Solid Waste Landfill (Subpart WWW) NSPS

Under the municipal solid waste landfill NSPS in § 60.752, the requirement to test open flares for heat content and flare exit velocity using Methods 18 and ASTM D1946 is being

changed to require Method 3C. These open flares must comply with the general flare provisions of 40 CFR 60.18, which require that flare gas heat content and flare exit velocity be within prescribed limits. The heat content of flare gas is determined from an analysis of its organic compound and hydrogen content using Method 18 and ASTM D1946, respectively. Methane is the only significant organic compound in landfill gas and hydrogen is not likely to be present. Therefore, Method 18 and ASTM D1946 are not practical methods for landfill applications. Method 3C is less labor-intensive than Method 18 and has the preferred measuring range for methane levels encountered at landfills. In addition, Method 3C determines oxygen and nitrogen which are currently determined by an additional method and are needed to calculate the flare gas exit velocity. We are proposing that Method 3C be required as the test method for methane in place of Method 18 and ASTM D1946 for organics and hydrogen.

D. Method 24 of Appendix A of Part 60

Method 24, Part 60, Appendix A is used to determine the contents and properties of surface coatings under NSPS applications. Method 24 currently references ASTM D2369 as the method for determining volatiles content. The American Society for Testing and Materials has recommended that ASTM D6419 be allowed as an alternative to D2369 in this case. We are proposing to amend Method 24 to allow this option.

E. Performance Specification 2, Part 60, Appendix B

In Performance Specification 2, Part 60, Appendix B, an inadvertent omission in an October 17, 2000 amendment removed an allowance for relative accuracy relief for low-emitters. We are proposing to reinstate the allowance.

F. Performance Specification 11 of Appendix of Appendix B of Part 60

The publication on January 12, 2004 of Performance Specification 11 for Appendix B and Procedure 2 for Part 60, Appendix F contained technical and typographical errors and unclear instructions. We are revising the definition of confidence interval half range to clarify the language, replacing the word ''pairs'' with ''sets'' to avoid possible confusion regarding the use of paired sampling trains, correcting errors in Equations 11–22, 11–27, and 11–37, correcting the procedures in paragraphs (4) and (5) of section 12.3 for determining confidence and tolerance interval half ranges for the exponential

and power correlation models, and adding a note following paragraph (5)(v) concerning the application of correlation equations to calculate PM concentrations using the response data from an operating PM CEMS. We are also renumbering some equations and references for clarification, consistency, and accuracy.

G. Method 303 of Appendix A of Part 63

In Method 303 of Appendix A of Part 63, we are proposing to add a statement on varying the time of day runs are taken that was deleted by mistake in a recent amendment of the method.

IV. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Reviews

Under Executive Order 12866 (58 FR 51735 October 4, 1993), we must determine whether this regulatory action is ''significant'' and therefore subject to Office of Management and Budget (OMB) review and the requirements of this Executive Order. The Order defines ''significant regulatory action'' as one that is likely to result in a rule that may: (1) Have an annual effect on the economy of $100 million or more or adversely affects in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, Local, or Tribal governments or communities; (2) create a serious inconsistency or otherwise interferes with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

We have determined that this rule is not a ''significant regulatory action'' under the terms of Executive Order 12866 and is therefore not subject to OMB review. We have determined that this regulation would result in none of the economic effects set forth in Section 1 of the Order because it does not impose emission measurement requirements beyond those specified in the current regulations, nor does it change any emission standard.

B. Paperwork Reduction Act

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* This actions provides performance criteria for a new

monitoring tool that may be used in some cases in place of current source monitoring requirements. These criteria do not add information collection requirements beyond those currently required under the applicable regulation. The additional amendments being made to the testing requirements in 40 CFR part 60 do no add information collection requirements but make minor corrections to existing testing methodology.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

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

C. Regulatory Flexibility Act

The RFA 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 today's rule 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. Entities potentially affected by this action

include those listed in Table 1 of **SUPPLEMENTARY INFORMATION**.

After considering the economic impacts of today's proposed rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. We are allowing, but not requiring, PEMS use in a number of recently-promulgated rules, and a number of facilities regulated by State and Local agencies are considering their use. The intended effect of this action is to facilitate the use of PEMS by establishing levels of acceptability for candidate PEMS. In addition, we are proposing to make minor amendments to various testing provisions in the New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants for Source Categories (MACT) to correct inadvertent errors, make needed updates, and add flexibility. We invite comments on all aspects of the proposal and its impacts on small entities.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, Local, and Tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, Local, and Tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

Today's rule contains no Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, Local, or Tribal governments or the private sector. The rule imposes no enforceable duty on any State, Local, or Tribal governments or the private sector. In any event, EPA has determined that this rule 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. Thus, today's rule is not subject to the requirements of Sections 202 and 205 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and Local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" are defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

This rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Thus, the requirements of Section 6 of the Executive Order do not apply to this rule.

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

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

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." "Policies that have tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

This proposed rule does not have tribal implications. It 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. In this proposed rule, we are simply allowing an alternative emission monitoring tool that applicable facilities may use. Thus, Executive Order 13175 does not apply to this rule.

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

Executive Order 13045 applies to any rule that EPA determines (1) is "economically significant" as defined under Executive Order 12866, and (2) the environmental health or safety risk addressed by the rule has a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

The EPA interprets Executive Order 13045 as applying only to regulatory actions that are based on 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 proposed rule is not subject to Executive Order 13045 because it is not based on health or safety risks.

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

This action is not subject to Executive Order 13211, "Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001) because it is

not a significant regulatory action under Executive Order 12866.

I. NTTAA: National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113 (15 U.S.C. 272), directs us to use voluntary consensus standards (VCSs) in our regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices, etc.) that are developed or adopted by VCS bodies. The NTTAA requires us to provide Congress, through OMB, explanations when we decide not to use available and applicable VCSs. We are not proposing new test methods in this rulemaking but are adding performance requirements for a new monitoring tool that can be used as an alternative to what has already been mandated. Therefore, NTTAA does not apply.

List of Subjects in 40 CFR Parts 60 and 63

Environmental protection, Air pollution control, New sources, Test methods and procedures, Performance specifications, and Continuous emission monitors.

Dated: July 26, 2005.

Stephen L. Johnson,
Administrator.

For the reasons stated in the preamble, the Environmental Protection Agency proposes to amend title 40, chapter I of the Code of Federal Regulations as follows:

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

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

Authority: 42 U.S.C. 7401, 7411, 7413, 7414, 7416, 7601, and 7602.

§ 60.106 [Amended]

2. By revising the equation in § 60.106(b)(3) to read as follows:

§ 60.106 Test methods and procedures.

* * * * *
(b) * * *
(3) * * *

$R_C = K_1 Q_r (\%CO_2 + \%CO) + (K_2 Q_a - K_3 Q_r)((\%CO / 2) + (\%CO_2 + \%O_2))$

* * * * *

§ 60.284 [Amended]

3. By revising § 60.284(f) to read as follows:

§ 60.284 Monitoring of emissions and operations.

* * * * *

(f) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems required under this section. All continuous monitoring systems shall be operated in accordance with the applicable procedures under Performance Specifications 1, 3, and 5 of appendix B of this part.

* * * * *

§ 60.752 [Amended]

4. By revising § 60.752(b)(2)(iii)(A) to read as follows:

§ 60.752 Standards for air emissions from municipal solid waste landfills

* * * * *
(b) * * *
(2) * * *
(iii) * * *

(A) An open flare designed and operated in accordance with § 60.18, except that the net heating value of the combusted landfill gas is calculated from the concentration of methane in the landfill gas as measured by Method 3C. Other organic components, hydrogen, and carbon monoxide are not measured;

* * * * *

Appendix A [Amended]

5. In Appendix A, by adding Section 6.7 to Method 24 to read as follows:

Method 24—Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings

* * * * *

6.7 ASTM D 6419–00, Test Method for Volatile Content of Sheet-Fed and Coldset Web Offset Printing Inks.

* * * * *

Appendix B [Amended]

6. In Appendix B, by adding a sentence to Section 13.2 of Performance Specification 2 to read as follows:

Performance Specification 2— Specifications and Test Procedures for SO₂ and NOₓ Continuous Emission Monitoring Systems in Stationary Sources

* * * * *

13.2 * * * For SO₂ emission standards of 130 to and including 86 ng/J (0.30 and 0.20 lb/million Btu), inclusive, use 15 percent of the applicable standard; below 86 ng/J (0.20 lb/million Btu), use 20 percent of the emission standard.

* * * * *

7. In Appendix B, Performance Specification 11:
A. By revising Sections 3.4 and 8.6;
B. By revising paragraphs (1)(ii), (2), (4), and (5) of Section 12.3;
C. By revising paragraph (3)(ii) of Section 12.4;
D. By revising (2) and (3) of Section 13.2;
E. By adding references 16.8 and 16.9 to Section 16.0; and
F. By revising Table 1 in Section 17.0.
The revisions and addition read as follows:

Performance Specification 11— Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources

* * * * *

3.4 ''Confidence Interval Half Range (CI)'' is a statistical term and means one-half of the width of the 95 percent confidence interval around the predicted mean PM concentration (y value) calculated at the PM CEMS response value (x value) where the confidence interval is narrowest. Procedures for calculating CI are specified in section 12.3. The CI as a percent of the emission limit value (CI%) is calculated at the appropriate PM CEMS response value and must satisfy the criteria specified in Section 13.2 (2).

* * * * *

8.6 How do I conduct my PM CEMS correlation test? You must conduct the correlation test according to the procedure given in paragraphs (1) through (5) of this section. If you need multiple correlations, you must conduct testing and collect at least 15 sets of reference method and PM CEMS data for calculating each separate correlation.

* * * * *

12.3 How do I determine my PM CEMS correlation?

* * * * *

(1) How do I evaluate a linear correlation for my correlation test data?

* * * * *

(ii) Calculate the half range of the 95 percent confidence interval (CI) for the predicted PM concentration (ŷ) at the mean value of x, using Equation 11–8:

$$CI = t_{df,\ 1-a/2} \cdot S_L \sqrt{\frac{1}{n}} \qquad (Eq.\ 11\text{-}8)$$

Where:
CI = the half range of the 95 percent confidence interval for the predicted PM concentration at the mean x value,
$t_{df,1-a/2}$ = the value for the t statistic provided in Table 1 for df = (n–2), and

S_L = the scatter or deviation of $\hat{y}$ values about the correlation curve, which is determined using Equation 11–9:

$$S_L = \sqrt{\frac{1}{n-2}\sum_{i=1}^{n}(\hat{y}_i - y_i)^2} \qquad \text{(Eq. 11-9)}$$

Calculate the confidence interval half range for the predicted PM concentration ($\hat{y}$) at the mean x value as a percentage of the emission limit (CI%) using Equation 11–10:

$$CI\% = \frac{CI}{EL} \cdot 100\% \qquad \text{(Eq. 11-10)}$$

Where:

CI = the half range of the 95 percent confidence interval for the

predicted PM concentration at the mean x value, and

EL = PM emission limit, as described in section 13.2.

(iii) Calculate the half range of the tolerance interval (TI) for the predicted PM concentration ($\hat{y}$) at the mean x value using Equation 11–11:

$$TI = k_T \cdot S_L \qquad \text{(Eq. 11-11)}$$

Where:

TI = the half range of the tolerance interval for the predicted PM concentration ($\hat{y}$) at the mean x value,

k_T = as calculated using Equation 11–12, and

S_L = as calculated using Equation 11–9:

$$k_T = u_{n'} \cdot v_{df} \qquad \text{(Eq. 11-12)}$$

Where:

n' = the number of test runs (n),

$u_{n'}$ = the tolerance factor for 75 percent coverage at 95 percent confidence provided in Table 1 for df = (n–2), and

v_{df} = the value from Table 1 for df = (n—2).

Calculate the half range of the tolerance interval for the predicted PM concentration (y) at the mean x value as a percentage of the emission limit (TI%) using Equation 11–13:

$$TI\% = \frac{TI}{EL} \cdot 100\% \qquad \text{(Eq. 11-13)}$$

Where:

TI = the half range of the tolerance interval for the predicted PM concentration ($\hat{y}$) at the mean x value, and

EL = PM emission limit, as described in section 13.2.

*   *   *   *   *

(2) How do I evaluate a polynomial correlation for my correlation test data?

To evaluate a polynomial correlation, follow the procedures described in paragraphs (2)(i) through (iv) of this section.

(i) Calculate the polynomial correlation equation, which is indicated by Equation 11–16, using Equations 11–17 through 11–22:

$$\hat{y} = b_0 + b_1 x + b_2 x^2 \qquad \text{(Eq. 11-16)}$$

Where:

$\hat{y}$ = the PM CEMS concentration predicted by the polynomial correlation equation, and

b_0, b_1, b_2 = the coefficients determined from the solution to the matrix equation Ab=B

Where:

$$A = \begin{bmatrix} n & S_1 & S_0 \\ S_1 & S_2 & S_3 \\ S_2 & S_3 & S_4 \end{bmatrix}, \quad b = \begin{bmatrix} b_0 \\ b_1 \\ b_2 \end{bmatrix}, \quad B = \begin{bmatrix} S_5 \\ S_6 \\ S_7 \end{bmatrix} \cdot S_1 = \sum_{i=1}^{n}(x_i), \; S_2 = \sum_{i=1}^{n}(x_i^2), \; S_3 = \sum_{i=1}^{n}(x_i^3), \; S_4 = \sum_{i=1}^{n}(x_i^4) \qquad \text{(Eq. 11-17)}$$

$$S_5 = \sum_{i=1}^{n}(y_i), \; S_6 = \sum_{i=1}^{n}(x_i y_i), \; S_7 = \sum_{i=1}^{n}(x_i^2 y_i) \cdot \qquad \text{(Eq. 11-18)}$$

Where:

x_i = the PM CEMS response for run i,

y_i = the reference method PM concentration for run i, and

n = the number of test runs.

Calculate the polynomial correlation curve coefficients (b_0, b_1, and b_2) using

Equations 11–19 through 11–21, respectively:

$$b_0 = \frac{(S_5 \cdot S_2 \cdot S_4 + S_1 \cdot S_3 \cdot S_7 + S_2 \cdot S_6 \cdot S_3 - S_7 \cdot S_2 \cdot S_2 - S_3 \cdot S_3 \cdot S_5 - S_4 \cdot S_6 \cdot S_1)}{\det A} \qquad \text{(Eq. 11-19)}$$

$$b_1 = \frac{(n \cdot S_6 \cdot S_4 + S_5 \cdot S_3 \cdot S_2 + S_2 \cdot S_1 \cdot S_7 - S_2 \cdot S_6 \cdot S_2 - S_7 \cdot S_3 \cdot n - S_4 \cdot S_1 \cdot S_5)}{\det A} \qquad \text{(Eq. 11-20)}$$

$$b_2 = \frac{(n \cdot S_2 \cdot S_7 + S_1 \cdot S_6 \cdot S_2 + S_5 \cdot S_1 \cdot S_3 - S_2 \cdot S_2 \cdot S_5 - S_3 \cdot S_6 \cdot n - S_7 \cdot S_1 \cdot S_1)}{\det A} \qquad \text{(Eq. 11-21)}$$

Where:

$$\det \ A = n \cdot S_2 \cdot S_4 - S_2 \cdot S_2 \cdot S_2 + S_1 \cdot S_3 \cdot S_2 - S_3 \cdot S_3 \cdot n + S_2 \cdot S_1 \cdot S_3 - S_4 \cdot S_1 \cdot S_1 \qquad \text{(Eq.11-22)}$$

(ii) Calculate the 95 percent confidence interval half range (CI) by first calculating the C coefficients (C_0 to C_5) using Equations 11–23 and 11–24:

$$C_0 = \frac{\left(S_2 \cdot S_4 - S_3^2\right)}{D}, \ C_1 = \frac{\left(S_3 \cdot S_2 - S_1 \cdot S_4\right)}{D}, \ C_2 = \frac{\left(S_1 \cdot S_3 - S_2^2\right)}{D}, \ C_3 = \frac{\left(nS_4 - S_2^2\right)}{D}, \ C_4 = \frac{\left(S_1 \cdot S_2 - nS_3\right)}{D}, \ C_5 = \frac{\left(nS_2 - S_1^2\right)}{D} \qquad \text{(Eq. 11-23)}$$

Where:

$$D = n\left(S_2 \cdot S_4 - S_3^2\right) + S_1\left(S_3 \cdot S_2 - S_1 \cdot S_4\right) + S_2\left(S_1 \cdot S_3 - S_2^2\right) \qquad \text{(Eq. 11-24)}$$

Calculate Δ using Equation 11–25 for each x value:

$$\Delta = C_0 + 2C_1 x + \left(2C_2 + C_3\right)x^2 + 2C_4 x^3 + C_5 x^3 \qquad \text{(Eq. 11-25)}$$

Determine the x value that corresponds to the minimum value Δ (Δ_{min}). Determine the scatter or deviation of $\hat{y}$ values about the polynomial correlation curve (S_P) using Equation 11–26:

$$S_P = \sqrt{\frac{1}{n-3}\sum_{i=1}^{n}\left(\hat{y}_i - y_i\right)^2} \qquad \text{(Eq. 11-26)}$$

Calculate the half range of the 95 percent confidence interval (CI) for the predicted PM concentration ($\hat{y}$) at the x value that corresponds to Δ_{min} using Equation 11–27:

$$CI = t_{df} \cdot S_p \sqrt{\Delta_{min}} \qquad \text{(Eq. 11-27)}$$

Where:

df = (n − 3), and
t_{df} = as listed in Table 1 (see section 17).

Calculate the half range of the 95 percent confidence interval for the predicted PM concentration at the x value that corresponds to Δ_{min} as a percentage of the emission limit (CI%) using Equation 11–28:

$$CI\% = \frac{CI}{EL} \cdot 100\% \qquad \text{(Eq. 11-28)}$$

Where:

CI = the half range of the 95 percent confidence interval for the predicted PM concentration at the x value that corresponds to Δ_{min}, and
EL = PM emission limit, as described in section 13.2.

(iii) Calculate the tolerance interval half range (TI) for the predicted PM concentration at the x value that corresponds to Δ_{min}, as indicated in Equation 11–29 for the polynomial correlation, using Equations 11–30 and 11–31:

$$TI = k_T \quad S_P \qquad \text{(Eq. 11-29}$$

Where:

$$k_T = u_n \cdot v_{df} \qquad \text{(Eq. 11-30)}$$

$$n' = \frac{1}{\Delta_{min}} \qquad \text{(Eq. 11-31)}$$

u_n = the value indicated in Table 1 for df = (n' − 3), and
v_{df} = the value indicated in Table 1 for df = (n' − 3).

Calculate the tolerance interval half range for the predicted PM concentration at the x value that corresponds to Δ_{min} as a percentage of the emission limit (TI%) using Equation 11–32:

$$TI\% = \frac{TI}{EL} \cdot 100\% \qquad \text{(Eq. 11-32)}$$

Where:

TI = the tolerance interval half range for the predicted PM concentration at the x value that corresponds to Δ_{min}, and
EL = PM emission limit, as described in section 13.2.

(iv) Calculate the polynomial correlation coefficient (r) using Equation 11–33:

$$r = \sqrt{1 - \frac{S_P^2}{S_y^2}} \qquad \text{(Eq. 11-33)}$$

Where:

S_P = as calculated using Equation 11–26, and
S_y = as calculated using Equation 11–15.

* * * * *

(4) How do I evaluate an exponential correlation for my correlation test data? To evaluate an exponential correlation, which has the form indicated by Equation 11–37, follow the procedures described in paragraphs (4)(i) through (v) of this section:

$$\hat{y} = b_0 e^{b_1 x} \qquad \text{(Eq. 11-37)}$$

(i) Perform a logarithmic transformation of each PM concentration measurement (y values) using Equation 11–38:

$$y_i' = Ln(y_i) \qquad \text{(Eq. 11-38)}$$

Where:

y_i' = is the transformed value of y_i, and
$Ln(y_i)$ = the natural logarithm of the PM concentration measurement for run i.

(ii) Using the values for y_i' in place of the values for y_i, perform the same procedures used to develop the linear correlation equation described in paragraph (1)(i) of this section. The resulting equation will have the form indicated by Equation 11–39.

$$\hat{y}' = b_0' + b_1 x \qquad \text{(Eq. 11-39)}$$

Where:

$\hat{y}'$ = the predicted log PM concentration value,
b_0' = the natural logarithm of b_0, and the variables b_0, b_1, and x are as defined in paragraph (1)(i) of this section.

(iii) Using the values for y'_i in place of the values for y_i, calculate the half range of the 95 percent confidence interval (CI'), as described in paragraph (1)(ii) of this section for CI. Note that CI' is on the log scale. Next, calculate the upper and lower 95 percent confidence limits for the mean value $\bar{y}'$ using Equations 11–40 and 11–41:

$$\text{LCL'} = \bar{y}' - \text{CI'} \qquad \text{(Eq. 11-40)}$$

$$\text{UCL'} = \bar{y}' + \text{CI'} \qquad \text{(Eq. 11-41)}$$

Where:

LCL' = the lower 95 percent confidence limit for the mean value $\bar{y}'$,
UCL = the upper 95 percent confidence limit for the mean value $\bar{y}'$,
$\bar{y}'$ = the mean value of the log-transformed PM concentrations, and
CI' = the half range of the 95 percent confidence interval for the predicted PM concentration ($\hat{y}'$), as calculated in Equation 11–8.

Calculate the half range of the 95 percent confidence interval (CI) on the original PM concentration scale using Equation 11–42:

$$\text{CI} = \frac{e^{\text{UCL'}} - e^{\text{LCL'}}}{2} \qquad \text{(Eq. 11-42)}$$

Where:

CI = the half range of the 95 percent confidence interval on the original PM concentration scale, and UCL' and LCL' are as defined previously.

Calculate the half range of the 95 percent confidence interval for the predicted PM concentration corresponding to the mean value of x as a percentage of the emission limit (CI%) using Equation 11–10.

(iv) Using the values for y'_i in place of the values for y_i, calculate the half range tolerance interval (TI'), as described in paragraph (1)(iii) of this section for TI. Note that TI' is on the log scale. Next, calculate the half range tolerance limits for the mean value $\bar{y}'$ using Equations 11–43 and 11–44:

$$\text{LTL'} = \bar{y}' - \text{TI'} \qquad \text{(Eq. 11-43)}$$

$$\text{UTL'} = \bar{y}' + \text{TI'} \qquad \text{(Eq. 11-44)}$$

Where:

LTL' = the lower 95 percent tolerance limit for the mean value $\bar{y}'$,
UTL' = the upper 95 percent tolerance limit for the mean value $\bar{y}'$,
$\bar{y}'$ = the mean value of the log-transformed PM concentrations, and
TI' = the half range of the 95 percent tolerance interval for the predicted PM concentration ($\hat{y}'$), as calculated in Equation 11–11.

Calculate the half range tolerance interval (TI) on the original PM concentration scale using Equation 11–45:

$$\text{TI} = \frac{e^{\text{UTL'}} - e^{\text{LTL'}}}{2} \qquad \text{(Eq. 11-45)}$$

TI = the half range of the 95 percent tolerance interval on the original PM scale, and UTL' and LTL' are as defined previously.

Calculate the tolerance interval half range for the predicted PM concentration corresponding to the mean value of x as a percentage of the emission limit (TI%) using Equation 11–13.

(v) Using the values for y'_i in place of the values for y_i, calculate the correlation coefficient (r) using the procedure described in paragraph (1)(iv) of this section.

(5) How do I evaluate a power correlation for my correlation test data? To evaluate a power correlation, which has the form indicated by Equation 11–46, follow the procedures described in paragraphs (5)(i) through (v) of this section.

$$\hat{y} = b_0 x^{b_1} \qquad \text{(Eq. 11-46)}$$

(i) Perform logarithmic transformations of each PM CEMS response (x values) and each PM concentration measurement (y values) using Equations 11–35 and 11–38, respectively.

(ii) Using the values for x'_i in place of the values for x_i, and the values for y'_i in place of the values for y_i, perform the same procedures used to develop the linear correlation equation described in

paragraph (1)(i) of this section. The resulting equation will have the form indicated by Equation 11–47:

$$\hat{y}' = b'_0 + b_1 x' \qquad \text{(Eq. 11-47)}$$

Where:

$\hat{y}'$ = the predicted log PM concentration value, and

x' = the natural logarithm of the PM CEMS response values,

b'_0 = the natural logarithm of b_0, and the variables b_0, b_1, and x are as defined in paragraph (1)(i) of this section.

(iii) Using the same procedure described for exponential models in paragraph (4)(iii) of this section, calculate the half range of the 95 percent confidence interval for the predicted PM concentration corresponding to the mean value of x' as a percentage of the emission limit.

(iv) Using the same procedure described for exponential models in paragraph (4)(iv) of this section, calculate the tolerance interval half range for the predicted PM concentration corresponding to the mean value of x' as a percentage of the emission limit.

(v) Using the values for y'_i in place of the values for y_i, calculate the correlation coefficient (r) using the procedure described in paragraph (1)(iv) of this section.

Note: PS–11 does not address the application of correlation equations to calculate PM emission concentrations using PM CEMS response data during normal operations of a PM CEMS. However, we will provide guidance on the use of specific correlation models (*i.e.*, logarithmic, exponential, and power models) to calculate PM concentrations in an operating PM CEMS in situations when the PM CEMS response values are equal to or less than zero, and the correlation model is undefined.

* * * * *

12.4 What correlation model should I use?

* * * * *

(3) * * *

(ii) Calculate the minimum value using Equation 11–48.

$$\text{maximum or minimum} = -\frac{b_1}{2b_2} \qquad \text{(Eq. 11-48)}$$

* * * * *

13.2 What performance criteria must my PM CEMS correlation satisfy?

* * * * *

(2) The confidence interval half range must satisfy the applicable criterion specified in paragraph (2)(i), (ii), or (iii) of this section, based on the type of correlation model.

(i) For linear or logarithmic correlations, the 95 percent confidence interval half range at the mean PM CEMS response value from the correlation test must be within 10

percent of the PM emission limit value specified in the applicable regulation. Therefore, the CI% calculated using Equation 11–10 must be less than or equal to 10 percent.

(ii) For polynomial correlations, the 95 percent confidence interval half range at the PM CEMS response value from the correlation test that corresponds to the minimum value for Δ must be within 10 percent of the PM emission limit value specified in the applicable regulation. Therefore, the CI% calculated using Equation 11–28 must be less than or equal to 10 percent.

(iii) For exponential or power correlations, the 95 percent confidence interval half range at the mean of the logarithm of the PM CEMS response values from the correlation test must be within 10 percent of the PM emission limit value specified in the applicable regulation. Therefore, the CI% calculated using Equation 11–10 must be less than or equal to 10 percent.

* * * * *

(3) The tolerance interval half range must satisfy the applicable criterion specified in paragraph (3)(i), (ii), or (iii) of this section, based on the type of correlation model.

(i) For linear or logarithmic correlations, the half range tolerance interval with 95 percent confidence and 75 percent coverage at the mean PM CEMS response value from the correlation test must be within 25 percent of the PM emission limit value specified in the applicable regulation. Therefore, the TI% calculated using Equation 11–13 must be less than or equal to 25 percent.

(ii) For polynomial correlations, the half range tolerance interval with 95 percent confidence and 75 percent coverage at the PM CEMS response value from the correlation test that corresponds to the minimum value for Δ must be within 25 percent of the PM emission limit value specified in the applicable regulation. Therefore, the TI% calculated using Equation 11–32 must be less than or equal to 25 percent.

(iii) For exponential or power correlations, the half range tolerance interval with 95 percent confidence and 75 percent coverage at the mean of the logarithm of the PM CEMS response values from the correlation test must be within 25 percent of the PM emission limit value specified in the applicable regulation. Therefore, the TI% calculated using Equation 11–13 must be less than or equal to 25 percent.

* * * * *

16.0 Which references are relevant to this performance specification?

* * * * *

16.8 Snedecor, George W. and Cochran, William G. (1989), Statistical Methods, Eighth Edition, Iowa State University Press.

16.9 Wallis, W.A. (1951) ''Tolerance Intervals for Linear Regression,'' in Second Berkeley Symposium on Mathematical Statistics and Probability, ed. J. Neyman, Berkeley: University of California Press, pp. 43–51.

17.0 What Reference Tables and Validation Data Are Relevant to PS–11?

* * * * *

TABLE 1.—FACTORS FOR CALCULATION OF CONFIDENCE AND TOLERANCE INTERVAL HALF RANGES

df	Student's t, t_{df}	Tolerance interval with 75% coverage and 95% confidence level		
		V_{df} (95%)	u_n, (75%)	k_T
3	3.182	2.920	1.266	3.697
4	2.776	2.372	1.247	2.958
5	2.571	2.089	1.233	2.576
6	2.447	1.915	1.223	2.342
7	2.365	1.797	1.214	2.183
8	2.306	1.711	1.208	2.067
9	2.262	1.645	1.203	1.979
10	2.228	1.593	1.198	1.909
11	2.201	1.551	1.195	1.853
12	2.179	1.515	1.192	1.806
13	2.160	1.485	1.189	1.766
14	2.145	1.460	1.186	1.732
15	2.131	1.437	1.184	1.702
16	2.120	1.418	1.182	1.676
17	2.110	1.400	1.181	1.653
18	2.101	1.384	1.179	1.633
19	2.093	1.370	1.178	1.614
20	2.086	1.358	1.177	1.597
21	2.080	1.346	1.175	1.582
22	2.074	1.335	1.174	1.568
23	2.069	1.326	1.173	1.555
24	2.064	1.316	1.172	1.544
25	2.060	1.308	1.172	1.533
26	2.056	1.300	1.171	1.522
27	2.052	1.293	1.170	1.513
28	2.048	1.286	1.170	1.504
29	2.045	1.280	1.169	1.496
30	2.042	1.274	1.168	1.488
31	2.040	1.268	1.168	1.481
32	2.037	1.263	1.167	1.474
33	2.035	1.258	1.167	1.467
34	2.032	1.253	1.166	1.461
35	2.030	1.248	1.166	1.455
36	2.028	1.244	1.165	1.450
37	2.026	1.240	1.165	1.444
38	2.024	1.236	1.165	1.439
39	2.023	1.232	1.164	1.435
40	2.021	1.228	1.164	1.430

TABLE 1.—FACTORS FOR CALCULATION OF CONFIDENCE AND TOLERANCE INTERVAL HALF RANGES—Continued

df	Student's t, t_{df}	Tolerance interval with 75% coverage and 95% confidence level		
		V_{df} (95%)	u_n, (75%)	k_T
41	2.020	1.225	1.164	1.425
42	2.018	1.222	1.163	1.421
43	2.017	1.218	1.163	1.417
44	2.015	1.215	1.163	1.413
45	2.014	1.212	1.163	1.410
46	2.013	1.210	1.162	1.406
47	2.012	1.207	1.162	1.403
48	2.011	1.204	1.162	1.399
49	2.010	1.202	1.162	1.396
50	2.009	1.199	1.161	1.393
51	2.008	1.197	1.161	1.390
52	2.007	1.195	1.161	1.387
53	2.006	1.192	1.161	1.384
54	2.005	1.190	1.161	1.381
55	2.004	1.188	1.160	1.379
56	2.003	1.186	1.160	1.376
57	2.002	1.184	1.160	1.374
58	2.002	1.182	1.160	1.371
59	2.001	1.180	1.160	1.369
60	2.000	1.179	1.160	1.367

References 16.8 (t values) and 16.9 (v_{df} and u_n, (values).

*   *   *   *   *

8. In Appendix B, by adding Performance Specification 16 to read as follows:

Appendix B—Performance Specifications

*   *   *   *   *

Performance Specification 16— Specifications and Test Procedures for Predictive Emission Monitoring Systems in Stationary Sources

1.0   Scope and Application

1.1   Does this performance specification apply to me? If you, the source owner or operator, intend to use a predictive emission monitoring system (PEMS) to show compliance with your emission limitation(s), you must use the procedures in this performance specification (PS) to determine whether your PEMS has acceptable performance. Use these procedures to certify your PEMS after initial installation and periodically thereafter to ensure the PEMS is operating properly. Additional tests may be required by an applicable regulation or by us, the reviewing authority. If your PEMS contains a diluent (O_2 or CO_2) measuring component, this must be tested as well.

1.1.1   How do I certify my PEMS after it is installed? We require that a relative accuracy (RA) test and accompanying statistical tests be passed in the initial certification test before your PEMS is acceptable for use in demonstrating compliance with applicable requirements. Ongoing quality assurance tests must be conducted to ensure the PEMS is operating properly. An ongoing sensor evaluation procedure must be in place before the PEMS certification is complete. The amount of testing and data validation we require depends upon the regulatory needs, *i.e.*, whether precise quantification of emissions will be needed or whether indication of exceedances of some regulatory threshold will suffice. Performance criteria are more rigorous for PEMSs that are used in market-based programs and for determining continual compliance with an emission limit than those used to measure excess emissions or indicate control device operation and maintenance (O&M). You must perform the initial certification test on your PEMS before reporting any PEMS data as quality-assured.

1.1.2   Is other testing required after certification? After you initially certify your PEMS, you must pass additional periodic performance checks to ensure the long-term quality of data. These periodic checks are listed in the table in Section 9. You are always responsible for maintaining and operating your PEMS properly.

2.0   Summary of Performance Specification

The following performance tests are required in addition to equipment and measurement location requirements.

2.1   Initial PEMS Certification.

2.1.1   Operation and Maintenance PEMS. PEMS that are used for excess emission reporting and as indicators of control device operation and maintenance must perform a minimum 9-run, 3-level (3 runs at each level) RA test (see Section 8.2).

2.1.2   Compliance and Market Trading PEMS. PEMS that are used for continual compliance standards or in a market trading program must perform a minimum 27-run, 3-level (9 runs at each level) comparison test against the reference method (RM) (see Section 8.1.6). The data are evaluated for bias and by F-test and correlation analysis.

2.2   Periodic Quality Assurance (QA) Assessments. All PEMSs are required to conduct quarterly relative accuracy audits (RAA) and yearly relative accuracy test audits (RATA) to assess ongoing PEMS operation.

3.0   Definitions

The following definitions apply:

3.1   Centroidal Area means that area in the center of the stack (or duct) comprising no more than 1 percent of the stack cross-sectional area and having the same geometric shape as the stack.

3.2   Data Recorder means the equipment that provides a permanent record of the PEMS output. The data recorder may include automatic data reduction capabilities and may include electronic data records, paper records, or a combination of electronic data and paper records.

3.3   Defective sensor means a sensor that is responsible for PEMS malfunction or that operates outside the approved operating envelope.

3.4   Diluent PEMS means the total equipment required to predict a diluent gas concentration.

3.5 Operating envelope means the defined range of a parameter input that is established during PEMS development. Emission data generated from parameter inputs that are outside the operating envelope are not considered quality assured and are therefore unacceptable.

3.6 PEMS means all of the equipment required to predict an emission concentration or emission rate. The system may consist of any of the following major subsystems: sensors and sensor interfaces, emission model, algorithm, or equation that uses process data to generate an output that is proportional to the emission concentration or emission rate, diluent emission model, data recorder, and sensor evaluation system. Simple relationships that use fewer than 3 variables may not be acceptable as PEMS, and such systems must have the Administrator's approval before use. A PEMS may or may not predict emissions data that are corrected for diluent.

3.7 Reconciled Process Data means substitute data that are generated by a sensor evaluation system to replace that of a failed sensor.

3.8 Relative Accuracy means the accuracy of the PEMS when compared to a RM at the source. The RA is the average difference between the pollutant PEMS and RM data for a specified number of runs plus a 2.5 percent confidence coefficient, divided by the average of the RM tests or the emission standard. For diluent PEMS, the RA may be expressed as a percentage absolute difference between the PEMS and RM. Alternative specifications may be given for low-emitting units.

3.9 Relative Accuracy Audit means a quarterly audit of the PEMS against a portable analyzer meeting the requirements of ASTM D6522–00 or RM for a specified number of runs.

3.10 Relative Accuracy Test Audit means a RA test that is performed at least once every four calendar quarters

while the PEMS is operating at the normal operating level. The RATA must not be conducted in consecutive quarters.

3.11 Reference Value means a PEMS baseline value established by RM testing under conditions when all sensors are functioning properly.

3.12 Sensor Evaluation System means the equipment or procedure used to periodically assess the quality of sensor input data. This system may be a sub-model that periodically cross-checks sensor inputs against other inputs or any other procedure that checks sensor integrity at least daily.

3.13 Sensors and Sensor Interface means the equipment that measures the process input signals and transports them to the emission prediction system.

4.0 Interferences [Reserved]

5.0 Safety [Reserved]

6.0 Equipment and Supplies

6.1 PEMS Design. You must define and make available details on the design of your PEMS. You must also establish the following, as applicable:

6.1.1 Number of Input Parameters. An acceptable PEMS will normally use three or more input parameters. You must obtain our permission on a case-by-case basis to use a PEMS having fewer than three input parameters.

6.1.2 Parameter Operating Envelopes. Before you evaluate your PEMS through the certification test, you must specify the input parameters your PEMS uses, define their range of minimum and maximum values (operating envelope), and demonstrate the integrity of the parameter operating envelopes using graphs and data from the PEMS development process. After the certification test, the PEMS must be operated within these envelopes at all times for the system to be acceptable. If these operating envelopes are not clearly defined, the PEMS operation will be limited to the range of parameter

inputs encountered during the certification test until the PEMS has a new operating envelope established.

6.1.3 Source-Specific Operating Conditions. Identify any source-specific operating conditions, such as fuel type, that will affect the output of your PEMS. You may only use your PEMS under the source-specific operating conditions it was certified for.

6.1.4 Ambient Conditions. You must explain whether and how ambient conditions and seasonal changes affect your PEMS. Some parameters such as absolute ambient humidity cannot be manipulated during a test. The effect of ambient conditions such as humidity on the pollutant concentration must be determined and this effect extrapolated to include future anticipated conditions. Seasonal changes and their effects on the PEMS must be evaluated unless you can show that such effects are negligible.

6.1.5 PEMS Principle of Operation. If your PEMS is developed on the basis of known physical principles, you must identify the specific physical assumptions or mathematical manipulations that support its operation. If your PEMS is developed on the basis of linear or nonlinear regression analysis, you must make available the paired data (preferably in graphic form) used to develop or train the model.

6.1.6 Data Recorder Scale. If you are not using a digital recorder, you must choose a recorder scale that accurately captures the desired range of potential emissions. The lower limit of your data recorder's range must be no greater than 20 percent of the applicable emission standard (if subject to an emission standard). The upper limit of your data recorder's range must be determined using the following table. If you obtain approval first, you may use other lower and upper recorder limits.

If PEMS is measuring . . .	And if . . .	Then your upper limit . . .
Uncontrolled emissions, such as NO$_X$ at the stack of a natural gas-fired boiler.	No regulation says otherwise	Must be 1.25 to 2 times the average potential emission level.
Uncontrolled emissions, such as NO$_X$ at the stack of a natural gas-fired boiler.	A regulation says otherwise	Must follow the other regulation.
Controlled emissions	....	Must be 1.5 to 2.0 times the concentration of the emission standard that applies to your emission unit.
Continual compliance emissions for an applicable regulation.	....	Must be 1.1 to 1.5 times the concentration of the emission standard that applies to your emission unit.

6.1.7 Sensor Location and Repair. We recommend you install sensors in an accessible location in order to perform

repairs and replacements. Permanently installed platforms or ladders may not be needed. If you install sensors in an

area which is not accessible, you may be required to shut down the emissions unit to repair or replace a sensor. If

necessary after repairing or replacing a sensor, correct the process data to match the data obtained from the originally tested sensor, or conduct another RA test. All sensors must be calibrated as often as needed but in no event less often than recommended by the manufacturers be exceeded.

6.1.8   Sensor Evaluation System. Your PEMS must be designed to perform automatic or manual determination of defective sensors on at least a daily basis. This sensor evaluation system may consist of a sensor validation sub-model, a comparison of redundant sensors, a spot check of sensor input readings at a reference value, operation, or emission level, or other procedure that detects faulty or failed sensors. Some sensor evaluation systems generate substitute values (reconciled data) that are used when a sensor is perceived to have failed. You must have our prior approval before you use reconciled data.

6.1.9   Parameter Envelope Exceedances. Your PEMS must include a plan to detect and notify the operator of parameter envelope exceedances. Emission data collected outside any of the operating ranges will not be considered quality assured.

6.2   Recordkeeping. All valid data recorded by the PEMS must be used to calculate the emission value. For a valid hourly average emission value, each 15-minute quadrant of the hour in which the unit combusts any fuel must contain at least one valid emission value.

7.0   Reagents and Standards [Reserved]

8.0   Sample Collection, Preservation, Storage, and Transport

8.1   Initial Certification. Use the following procedure to certify your PEMS. Complete all PEMS training before the certification.

8.2   Relative Accuracy Test.

8.2.1   Reference Methods. Unless otherwise specified in the applicable regulations, you must use the test methods in Appendix A of this part for the RM test. Conduct the RM tests at three operating levels of the key parameter that affects emissions, *e.g.*, load level. Conduct the specified number of RM tests at the low (minimum to 50 percent of maximum), normal, and high (80 percent to maximum) operating levels as practicable.

8.2.2   Number of RM Tests for O&M PEMS. Conduct at least nine RM tests at the following key parameter operating levels:

• Three at a low level.
• Three at the normal level.
• Three at a high level.

You may choose to perform more than nine RM tests. If you perform more than nine tests, you may reject a maximum of three tests as long as the total number of test results used to determine the RA is greater than or equal to nine and each operating level has at least three tests. You must report all data, including the rejected data.

8.2.3   Number of RM Tests for Continual Compliance and Market-Trading PEMS. Conduct at least 27 RM tests at the following key parameter operating levels:

• Nine at a low level.
• Nine at the normal operating level.
• Nine at a high level.

You may choose to perform more than 9 RM runs at each operating level. If you perform more than 9 runs, you may reject a maximum of three runs as long as the total number of runs used to determine the RA at each operating level is greater than or equal to 9.

8.2.4   Reference Method Measurement Location. Select an accessible measurement point for the RM that will ensure that you measure emissions representatively. Ensure the location is at least two equivalent stack diameters downstream and a half equivalent diameter upstream from the nearest flow disturbance such as the control device, point of pollutant generation, or other place where the pollutant concentration or emission rate can change. You may use a half diameter downstream instead of the two diameters if you meet both of the following conditions:

• Changes in the pollutant concentration are caused solely by diluent leakage, such as leaks from air heaters.

• You measure pollutants and diluents simultaneously at the same location.

8.2.5   Traverse Points. Select traverse points that ensure you obtain representative samples. Conduct all RM tests within 3 cm of each selected traverse point but no closer than 3 cm to the stack or duct wall. The minimum requirements for selecting traverse points are as follows:

1. Establish a measurement line across the stack that passes through the center and in the direction of any expected stratification.

2. Locate a minimum of three traverse points on the line at 16.7, 50.0, and 83.3 percent of the stack inside diameter.

3. If the stack inside diameter is greater than 2.4 meters, you may locate the three traverse points on the line at 0.4, 1.2, and 2.0 meters from the stack or duct wall. You cannot use this option after wet scrubbers or at points where

two streams with different pollutant concentrations are combined.

4. You may select a different traverse point if you demonstrate and provide verification that it provides a representative sample.

If you desire to test at only one traverse point, use the following procedure, or provide supporting information for alternative procedures, to show that the single point yields representative results.

1. Use Method 1 to establish the number and location of traverse points that are normally used to sample the stack or duct.

2. Following the RM procedures, measure emissions at each traverse point for a period of two minutes plus twice the response time of the RM.

3. Determine the average of the emissions from all traverse points.

4. Choose the traverse point with emissions closest to the average emissions from all points as the sampling location for the RM tests.

5. You may select a different traverse point if you can show that it provides a representative sample.

8.2.6   Relative Accuracy Procedure. Perform the number of RA tests at the levels required in Sections 8.2.2 and 8.2.3. For integrated samples, *e.g.*, Method 3A or 7E, make a sample traverse of at least 21 minutes, sampling for 7 minutes at each traverse point. For grab samples, *e.g.*, Method 3 or 7, take one sample at each traverse point, scheduling the grab samples so that they are taken simultaneously (within a 3-minute period) or at an equal interval of time apart over a 21-minute (or less) period. A test run for grab samples must be made up of at least three separate measurements.

Where multiple fuels are used in the monitored unit and the fuel type affects the predicted emissions, determine a RA for each fuel unless the effects of the alternative fuel on predicted emissions or diluent were addressed in the model training process. You may only use fuels in your unit that have been evaluated this way.

8.2.4   Correlation of RM and PEMS Data. Mark the beginning and end of each RM test run (including the exact time of day) on the permanent record of PEMS output. Correlate the PEMS and the RM test data as to the time and duration using the following steps:

A. Determine the integrated pollutant concentration for the PEMS for each corresponding RM test period.

B. Consider system response time, if important, and confirm that the pair of results are on a consistent moisture, temperature, and diluent concentration basis.

C. Compare each average PEMS value to the corresponding average RM value.

Use the following guidelines to make these comparisons.

If . . .	Then . . .	And then . . .
The RM has an instrumental or integrated non-instrumental sampling technique.	Directly compare RM and PEMS results..	
The RM has a grab sampling technique	Average the results from all grab samples taken during the test run. The test run must include ≥3 separate grab measurements.	Compare this average RM result with the PEMS result obtained during the run.

8.2.5 Relative Accuracy for O&M PEMS. Use the paired PEMS and RM data and the equations in Section 12.2 to calculate the RA in the units of the applicable emission standard. For this 3-level RA test, calculate the RA at each operation level.

8.3 Statistical Tests for PEMS that are Used for Continual Compliance or Market-Trading. In addition to the RA determination, evaluate the paired RA and PEMS data using the following statistical tests.

8.3.1 Bias Test. From the RA data taken at the normal operating level, determine if a bias exists between the RM and PEMS. Use the equations in Section 12.3.1.

8.3.2 F-test. Perform a separate F-test for the RA paired data from each operating level to determine if the RM and PEMS variances differ by more than might be expected from chance. Use the equations in Section 12.3.2.

8.3.3 Correlation Analysis. Perform a correlation analysis on all RA paired data from all operating levels, combined, to determine how well the RM and PEMS correlate. Use the equations in Section 12.3.3.

If the process cannot be varied to produce a concentration change sufficient for a successful correlation test because of its technical design, the correlation analysis may be temporarily

waived by the Administrator if the emission concentration is less than 50 percent of the applicable emission standard. Requests for waiver must be accompanied by RM documentation of the emission concentration. The waiver will be based on the measured value at the time of the waiver. Should a subsequent RATA identify a change in the RM measured value by more than 30 percent, the correlation analysis test must be repeated at the next RATA.

8.3.4 Additional Statistical Tests. Consult the reviewing authority with jurisdiction over your emissions unit for additional requirements.

8.4 Reporting. Summarize in tabular form the results of the RA and statistical tests. Include all data sheets, calculations, and charts (records of PEMS responses) necessary to verify your PEMS's meeting the performance specifications. Include in the report the documentation used to establish your PEMS parameter envelopes. Consult the EPA regional office or permitting authority with jurisdiction over your emissions unit for additional requirements.

8.5 Reevaluating Your PEMS After a Failed Test, Change in Operations, or Change in Critical PEMS Parameter. After initial certification, if a quarterly RAA or yearly RATA is failed due to a problem with the PEMS, or if changes

occur that result in a significant change in the emission rate (*e.g.*, turbine aging, process modification, new process operating modes, or changes to emission controls), your PEMS must be recertified using the tests and procedures in Section 8.1. For example, if you initially operated the emissions unit at 80–100 percent of its range, you would have performed the initial test under these conditions. Later, if you wanted to operate the emission unit at 50–100 percent of its range, you must conduct another RA test and statistical tests, as applicable, under the new conditions of 50–100 percent of range. These tests must demonstrate that your PEMS provides acceptable data when operating in the new range or with the new critical PEMS parameter(s). The requirements of Section 8.1 must be completed by the earlier of 60 unit operating days or 180 calendar days after the failed RATA or after the change that caused a significant change in emission rate.

9.0 Quality Control.

You must incorporate a QA plan beyond the initial PEMS certification test to verify that your system is generating quality-assured data. The QA plan must include the components of this section.

9.1 QA/QC Summary. Conduct the applicable ongoing tests listed below.

ONGOING QUALITY ASSURANCE TESTS

Test	PEMS Regulatory Purpose	Acceptability	Frequency
Sensor Evaluation Check	All	....	Daily.
RAA	Compliance	3-test average ≤10% of simultaneous PEMS average.	Each quarter except quarter when RATA performed.
RATA	All	Same as for RA in Sec. 13.1	Yearly in quarter when RAA not performed.
Bias Correction	All	If d_{avg} > |cc|	Determine factor after each RATA.
PEMS Training	All	If $F_{critical}$ ≥F r ≥0.8	After initial and subsequent RATAs.
Sensor Evaluation Alert Test	All	See Section 6.1.8	After each PEMS training.

9.2 Daily Sensor Evaluation Check. Your sensor evaluation system must check the integrity of each PEMS input at least daily.

9.3 Quarterly Relative Accuracy Audit. Perform a RAA consisting of at

least three 30-minute portable analyzer determinations each quarter a RATA is not performed.

9.4 Yearly Relative Accuracy Test Audit. Perform a minimum 9-run RATA at the normal operating level on a yearly

basis in the quarter that the RAA is not preformed.

10.0 Calibration and Standardization [Reserved]

11.0 Analytical Procedure [Reserved]

12.0 Calculations and Data Analysis

12.1 Nomenclature.

B = PEMS bias adjustment factor.

cc = Confidence coefficient.

d_i = Difference between each RM and PEMS run.

$\bar{d}$ = Arithmetic mean of differences for all runs.

e_i = Individual measurement provided by the PEMS or RM at a particular level.

e_m = Mean of the PEMS or RM measurements at a particular level.

e_p = Individual measurement provided by the PEMS.

e_v = Individual measurement provided by the RM.

F = Calculated F-value.

n = Number of RM runs.

$PEMS_i$ = Individual measurement provided by the PEMS.

$PEMS_{iAdjusted}$ = Individual measurement provided by the PEMS adjusted for bias.

$\overline{PEMS}$ = Mean of the values provided by the PEMS at the normal operating range during the bias test.

r = coefficient of correlation.

RA = Relative accuracy.

$\overline{RM}$ = Average RM value. In cases where the average emissions for the test are less than 50 percent of the applicable standard, substitute the emission standard value here in place of the average RM value.

S_d = Standard deviation of differences.

S^2 = variance of your PEMS or RM.

$t_{0.025}$ = t-value for a one-sided, 97.5 percent confidence interval (see Table 16–1).

12.2 Relative Accuracy Calculations. Calculate the mean of the RM values. Calculate the differences between the pairs of observations for the RM and the PEMS output sets. Finally, calculate the mean of the differences, standard deviation, confidence coefficient, and PEMS RA, using Equations 16–1, 16–2, 16–3, and 16–4, respectively. For compliance and market-trading PEMS, calculate the RA at each operating level. The PEMS must pass the RA criterion at each operating level.

12.2.1 Arithmetic Mean. Calculate the arithmetic mean of the differences

between paired RM and PEMS observations using Equation 16–1.

$$\bar{d} = \frac{1}{n} \sum_{i=1}^{n} d_i \qquad \text{Eq. 16-1}$$

12.2.2 Standard Deviation. Calculate the standard deviation of the differences using Equation 16–2 (positive square root).

$$s_d = \left(\frac{\sum_{i=1}^{n} d_i - \frac{\left(\sum_{i=1}^{n} d_i\right)^2}{n}}{n-1} \right) \qquad \text{Eq. 16-2}$$

12.2.3 Confidence Coefficient. Calculate the confidence coefficient using Equation 16–3 and Table 16–1.

$$cc = t_{0.025} \frac{S_d}{\sqrt{n}} \qquad \text{Eq. 16-3}$$

12.2.4 Relative Accuracy. Calculate the RA of your data using Equation 16–4.

$$RA = \frac{|\bar{d}| + |cc|}{\overline{RM}} \times 100 \qquad \text{Eq. 16-4}$$

12.3 Compliance and Market-Trading PEMS Statistical Tests. If your PEMS will be used for continual compliance or market-trading purposes, conduct the following tests using the information obtained during the RA tests. For the pollutant measurements at any one test level, if the mean value of the RM is less than either 10 ppm or 5 percent of the emission standard, all statistical tests are waived at that specific test level. For diluent measurements at any one test level, if the mean value of the RM is less than 3 percent of span, all statistical tests are waived for that specific test level.

12.3.1 Bias Test. Conduct a bias test to determine if your PEMS is biased relative to the RM. Determine the PEMS bias by comparing the confidence coefficient obtained from Equation 16–3 to the arithmetic mean of the differences determined in Equation 16–1. If the arithmetic mean of the

differences $\bar{d}$ is greater than the absolute value of the confidence coefficient (cc), your PEMS must incorporate a bias factor to adjust future PEMS values as in Equation 16–5.

$$PEMS_{iAdjusted} = PEMS_i \times B \qquad \text{Eq. 16-5}$$

Where:

$$B = 1 + \frac{|\bar{d}|}{\overline{PEMS}} \qquad \text{Eq. 16-6a}$$

12.3.2 F-test. Conduct an F-test for each of the three RA data sets collected at different parameter operating levels. Calculate the variances of the PEMS and the RM using Equation 16–6.

$$S^2 = \frac{\sum_{i=1}^{n} (e_i - e_m)^2}{n-1} \qquad \text{Eq. 16-6}$$

Determine if the variance of the PEMS data is significantly different from that of the RM data at each level by calculating the F-value using Equation 16–7.

$$F = \frac{S^2_{PEMS}}{S^2_{RM}} \qquad \text{Eq. 16-7}$$

Compare the calculated F-value with the critical value of F at the 95 percent confidence level with n-1 degrees of freedom. The critical value is obtained from Table 16–2 or a similar table for F-distribution. If the calculated F-value is greater than the critical value at any level, your proposed PEMS is unacceptable.

For pollutant PEMS measurements, if the standard deviation of the RM is less than either 3 percent of the span or 5 ppm, use a RM standard deviation of either 5 ppm or 3 percent of span. For diluent PEMS measurements, if the standard deviation of the reference method is less than 3 percent of span, use a RM standard deviation of 3 percent of span.

12.3.3 Correlation Analysis. Calculate the correlation coefficient either manually using Eq. 16–8, on a graph, or by computer using all of the paired data points from all operating levels. Your PEMS correlation must be 0.8 or greater to be acceptable.

$$r = \frac{\sum e_p e_v - \left(\sum e_p\right)\left(\sum e_v\right)/n}{\sqrt{\left[\left(\sum e_p^2 - \left(\sum e_p\right)^2/n\right)\left(\sum e_v^2 - \left(\sum e_v\right)^2/n\right)\right]}} \qquad \text{(Eq. 16-8)}$$

13.0 Method Performance.

13.1 PEMS Relative Accuracy. See the relevant regulation for the applicable RA criterion. For PEMS installed to meet New Source Performance Standards, the RA of your PEMS must be no greater than 10 percent when based upon the average RM data (which must be measured in the units of your emission standard). For emissions below 25 percent of the emission standard, 20 percent RA based upon the emission standard may be used. For emissions below 10 percent of the emission standard, average PEMS measurements within 2 ppm of the RM mean value constitutes an acceptable RA test. For diluent PEMS, an alternative criterion of ±1 percent absolute difference between the PEMS and RM may be used if less stringent.

13.2 PEMS Bias. Your PEMS data is considered biased and must be adjusted if the arithmetic mean (d) is greater than the absolute value of the confidence coefficient (cc) in Equations 16.1 and 16.3. In such cases, a bias factor must be used to correct your PEMS data.

13.3 PEMS Variance. Your calculated F-value must not be greater than the critical F-value at the 95-percent confidence level for your PEMS to be acceptable.

13.4 PEMS Correlation. Your calculated r-value must be greater than or equal to 0.8 for your PEMS to be acceptable.

14.0 Pollution Prevention. [Reserved]

15.0 Waste Management. [Reserved]

16.0 References. [Reserved]

17.0 Tables, Diagrams, Flowcharts, and Validation Data

TABLE 16–1.—T-VALUES FOR ONE-SIDED, 97.5 PERCENT CONFIDENCE INTERVALS FOR SELECTED SAMPLE SIZES†

n-1	$t_{0.025}$
2	12.706
3	4.303
4	3.182
5	2.776
6	2.571
7	2.447

TABLE 16–1.—T-VALUES FOR ONE-SIDED, 97.5 PERCENT CONFIDENCE INTERVALS FOR SELECTED SAMPLE SIZES†—Continued

n-1	$t_{0.025}$
8	2.365
9	2.306
10	2.262
11	2.228
12	2.201
13	2.179
14	2.160
15	2.145
16	2.131
17	2.120
18	2.110
19	2.101
20	2.093
21	2.086
22	2.080
23	2.074
24	2.069
25	2.064
26	2.060
27	2.056
28	2.052
>29	t-Table

†(Use n equal to the number of data points (n-1 equals the degrees of freedom).

TABLE 16–2.—F-VALUES FOR CRITICAL VALUE OF F AT THE 95 PERCENT CONFIDENCE LEVEL

d.f. for S^2_{RM}	d.f. for S^2_{PEMS}											
	1	2	3	4	5	6	7	8	9	10	11	12
1	161.4	199.5	215.7	224.6	230.2	234.0	236.8	238.9	240.5	241.8	243.0	243.9
2	18.51	19.00	19.16	19.25	19.30	19.33	19.35	19.37	19.38	19.50	19.40	19.41
3	10.13	9.552	9.277	9.117	9.014	8.941	8.887	8.845	8.812	8.786	8.763	8.745
4	7.709	6.944	6.591	6.388	6.256	6.163	6.094	6.041	5.999	5.964	5.935	5.912
5	6.608	5.786	5.410	5.192	5.050	4.950	4.876	4.818	4.773	4.735	4.703	4.678
6	5.987	5.143	4.757	4.534	4.387	4.284	4.207	4.147	4.099	4.060	4.027	4.000
7	5.591	4.734	4.347	4.120	3.971	3.866	3.787	3.726	3.677	3.637	3.603	3.575
8	5.318	4.459	4.066	3.838	3.688	3.581	3.501	3.438	3.388	3.347	3.312	3.284
9	5.117	4.257	3.863	3.633	3.482	3.374	3.293	3.230	3.197	3.137	3.102	3.073
10	4.965	4.103	3.709	3.478	3.326	3.217	3.136	3.072	3.020	2.978	2.942	2.913
11	4.844	3.982	3.587	3.357	3.204	3.095	3.012	2.948	2.896	2.854	2.817	2.788
12	4.747	3.885	3.490	3.259	3.106	2.996	2.913	2.849	2.796	2.753	2.717	2.687

* * * * *

Appendix F—[Amended]

9. In Procedure 1 of Appendix F, by revising paragraph (3) of Section 5.1.2 and Section 8 as follows:

Procedure 1. Quality Assurance Requirements for Gas Continuous Emission Monitoring Systems Used for Compliance Determination

* * * * *

5.1.2 Cylinder Gas Audit (CGA).

* * * * *

(3) Use Certified Reference Materials (CRM's) (See Citation 1) audit gases that have been certified by comparison to National Institute of Standards and Technology (NIST) or EPA Traceability Protocol Materials (ETPM's) following the most recent edition of EPA's Traceability Protocol No. 1 (See Citation 2). Procedures for preparation of CRM's are described in Citation 1. Procedures for preparation of ETPM's are described in Citation 2. As an alternative to CRM's or ETPM gases, Method 205 (See Citation 3) may be used.

The difference between the actual concentration of the audit gas and the concentration indicated by the monitor is used to assess the accuracy of the CEMS.

* * * * *

8. Bibliography

1. ''A Procedure for Establishing Traceability of Gas Mixtures to Certain National Bureau of Standards Standard Reference Materials.'' Joint publication by NBS and EPA–600/7–81–010, Revised 1989. Available from the U.S. Environmental Protection Agency. Quality Assurance Division (MD–77). Research Triangle Park, NC 27711.

2. ''EPA Traceability Protocol For Assay And Certification Of Gaseous Calibration Standards.'' EPA–600/R–97/121, September 1997. Available from EPA's Emission Measurement Center at *www.epa.gov/ttn/emc.*

3. Method 205, ''Verification of Gas Dilution Systems for Field Instrument Calibrations,'' 40 CFR 51, Appendix M.

* * * * *

10. In Procedure 2, by revising Section 10.1, paragraph (3) of Section

10.4, paragraph (2) of Section 12.0 as follows:

Procedure 2—Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources

* * * * *

10.1 When should I use paired trains for reference method testing? Although not required, we recommend that you should use paired-train reference method testing to generate data used to develop your PM CEMS correlation and for RCA testing. Guidance on the use of paired sampling trains can be found in the PM CEMS Knowledge Document (see section 16.5 of PS–11).

* * * * *

10.4 What are my limits for excessive audit inaccuracy?

* * * * *

(3) What are the criteria for excessive ACA error? Your PM CEMS is out of control if the results of any ACA exceed ±10 percent of the average audit value, as calculated using Equation 2–1a, or 7.5 percent of the applicable standard, as calculated using Equation 2–1b, whichever is greater.

* * * * *

12.0 What calculations and data analysis must I perform for my PM CEMS?

* * * * *

(2) How do I calculate ACA accuracy? You must use either Equation 2–1a or 2–1b to calculate ACA accuracy for each of the three audit points. However, when calculating ACA accuracy for the first audit point (0 to 20 percent of measurement range), you must use Equation 2–1b to calculate ACA accuracy if the reference standard value (R_v) equals zero.

$$\text{ACA Accuracy} = \frac{\left| R_{CEM} - R_V \right|}{R_V} \times 100\% \qquad \text{(Eq. 2-1a)}$$

Where:

ACA Accuracy=The ACA accuracy at each audit point, in percent,

R_{CEM} = Your PM CEMS response to the reference standard, and
R_V = The reference standard value.

$$\text{ACA Accuracy} = \frac{\left| C_{CEM} - C_{RV} \right|}{C_s} \times 100\% \qquad \text{(Eq. 2-1b)}$$

Where:
ACA Accuracy = The ACA accuracy at each audit point, in percent,
C_{CEM} = The PM concentration that corresponds to your PM CEMS response to the reference standard, as calculated using the correlation equation for your PM CEMS,
C_{RV} = The PM concentration that corresponds to the reference standard value in units consistent with C_{CEM}, and
C_s = The PM concentration that corresponds to the applicable emission limit in units consistent with C_{CEM}.

* * * * *

11. The authority citation for Part 63 continues to read as follows:

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

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

12. In Method 303 of Appendix A, by adding the following sentence to Section 1.1:

Appendix A to Part 63—Test Methods

* * * * *

Method 303—Determination of Visible Emissions From By-Product Coke Oven Batteries

* * * * *

1.0 Scope and Application

1.1 Applicability. * * * In order for the test method results to be indicative of plant performance, the time of day of the run should vary.

* * * * * *Q P='03'≤

[FR Doc. 05–15330 Filed 8–5–05; 8:45 am]
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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[OPP–2005–0069; FRL–7729–4]

Inert Ingredients; Proposal to Revoke 34 Pesticide Tolerance Exemptions for 31 Chemicals; Reopening of Comment Period

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule; reopening of comment period.

SUMMARY: This document reopens the public comment periodof EPA's proposal to revoke 34 exemptions from the requirement of a tolerance that are associated with 31 inert ingredients because, according to Agency records, these substances are no longer contained in active Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

pesticide product registrations (70 FR 31401, June 1, 2005).

DATES: Comments, identified by the docket identification (ID) number OPP–2005–0069, must be received on or before August 31, 2005.

ADDRESSES: Follow the detailed instructions as provided under **ADDRESSES** in the **Federal Register** document of June 1, 2005.

FOR FURTHER INFORMATION CONTACT: Karen Angulo, Registration Division (7505C), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001; telephone number: (703) 306–0404; fax number: (703) 305–0599; e-mail address: *angulo.karen@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this Action Apply to Me?

The Agency included in the proposed rule a list of those who may be potentially affected by this action. If you have questions regarding the applicability of this action to a particular entity, consult the person listed under **FOR FURTHER INFORMATION CONTACT**.