San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

DEC 05 2011

Gerardo C. Rios, Chief
Permits Office
Air Division
U.S. EPA - Region IX
75 Hawthorne St
San Francisco, CA 94105

Re: **Proposed Authority to Construct / Certificate of Conformity (Minor Mod)**
District Facility # S-525
Project # S-1113629

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authority to Construct for Land O' Lakes, Inc., located at 400 South M Street, Tulare, which has been issued a Title V permit. Land O' Lakes, Inc. is requesting that a Certificate of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. The project is to modify permit S-525-42 for an existing 180 MMBtu/hr natural gas-fired boiler by detailing the specific requirements of its Predictive Emission Monitoring System (PEMS) and replacing its alternate monitoring scheme conditions.

Enclosed is the engineering evaluation of this application, a copy of the current Title V permit, and proposed Authority to Construct # S-525-42-4 with Certificate of Conformity. After demonstrating compliance with the Authority to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

Enclosures
cc: Homero Ramirez, Permit Services

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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AIR POLLUTION CONTROL DISTRICT

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DEC 0 5 2011

Douglas Findley
Land O' Lakes, Inc.
400 South M St
Tulare, CA 93274

Re: Proposed Authority to Construct / Certificate of Conformity (Minor Mod)
District Facility # S-525
Project # S-1113629

Dear Mr. Findley:

Enclosed for your review is the District's analysis of your application for Authority to Construct for the facility identified above. You have requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The project is to modify permit S-525-42 for an existing 180 MMBtu/hr natural gas-fired boiler by detailing the specific requirements of its Predictive Emission Monitoring System (PEMS) and replacing its alternate monitoring scheme conditions.

After addressing any EPA comments made during the 45-day comment period, the Authority to Construct will be issued to the facility with a Certificate of Conformity. Prior to operating with modifications authorized by the Authority to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

Enclosures
cc: Homero Ramirez, Permit Services

San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Specify Predictive Emission Monitoring System (PEMS) Requirement for Boiler

Facility Name:	Land O' Lakes, Inc.	Date:	December 5, 2011
Mailing Address:	400 South M Street	Engineer:	Homero Ramirez
	Tulare, CA 93274	Lead Engineer:	Richard Karrs
Contact Person:	Douglas Findley		
Telephone:	(559) 687-6653		
Fax:	(559) 685-6930		
E-Mail:	dwfindley@landolakes.com		
Application #:	S-525-42-4		
Project #:	S-1113629		
Deemed Complete:	October 3, 2011		

I. Proposal

Land O' Lakes, Inc. (LOL) requests an Authority to Construct (ATC) to modify permit S-525-42 for an existing 180 MMBtu/hr natural gas-fired boiler by detailing the specific requirements of the Predictive Emission Monitoring System (PEMS) and replacing the alternate monitoring scheme conditions. In project S-1083802, ATC S-525-42-0 authorized the installation of a PEMS with final approval of the proposed system detailed requirements to be obtained through EPA as required by the following condition:

- Permittee shall submit to the EPA Regional Administrator for approval a plan that identifies the operating conditions to be monitored under 40 CFR 60.48b (g)(2) and the records to be maintained under 60.49b (j). This plan shall be submitted to the EPA Regional Administrator for approval within 360 days of the initial startup of the affected facility. [District Rule 4001]

With this application, the applicant is requesting to incorporate the requirements of EPA Performance Standard 16 as authorized in a letter dated April 19, 2011 from EPA to the permittee. These PEMS requirements will replace the alternate monitoring scheme conditions on the permit.

LOL received their Title V Permit on January 14, 1999. This modification can be classified as a Title V minor modification pursuant to Rule 2520, Section 3.20, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. LOL must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4202	Particulate Matter Emission Rate (12/17/92)
Rule 4301	Fuel Burning Equipment (12/17/92)
Rule 4305	Boilers, Steam Generators and Process Heaters – Phase 2 (8/21/03)
Rule 4306	Boilers, Steam Generators and Process Heaters – Phase 3 (3/17/05)
Rule 4351	Boilers, Steam Generators and Process Heaters – Phase 1 (8/21/03)
Rule 4309	Dryers, Dehydrators, and Ovens (12/15/05)
Rule 4320	Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr (10/16/08)
Rule 4801	Sulfur Compounds (12/17/92)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice

Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The facility is located at 400 South M Street in Tulare. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

The subject natural gas-fired boiler is used in the production of powdered milk. The boiler, which is equipped with a low NOx burner and flue gas recirculation, has a maximum operating schedule of 24 hr/day, 365 day/yr.

V. Equipment Listing

Pre-Project Equipment Description:

S-525-42-3: 180 MMBTU/HR UNION IRON WORKS NATURAL GAS FIRED BOILER WITH RMB LOW NOX BURNER AND FLUE GAS RECIRCULATION

Proposed Modification:

S-525-42-4: MODIFICATION OF 180 MMBTU/HR UNION IRON WORKS NATURAL GAS FIRED BOILER WITH RMB LOW NOX BURNER AND FLUE GAS RECIRCULATION: SPECIFY THE PREDICTIVE EMISSION MONITORING SYSTEM (PEMS) REQUIREMENTS AND REPLACE THE ALTERNATE MONITORING SCHEME CONDITIONS

Post Project Equipment Description:

S-525-42-4: 180 MMBTU/HR UNION IRON WORKS NATURAL GAS FIRED BOILER WITH RMB LOW NOX BURNER, FLUE GAS RECIRCULATION, AND A PREDICTIVE EMISSIONS MONITORING SYSTEM (PEMS)

VI. Emission Control Technology Evaluation

Emissions from natural gas-fired boilers include NOx, CO, VOC, PM_{10}, and SOx.

Low-NOx burners reduce NOx formation by producing lower flame temperatures (and longer flames) than conventional burners. Conventional burners thoroughly mix all the fuel and air in a single stage just prior to combustion, whereas low-NOx burners delay the mixing of fuel and air by introducing the fuel (or sometimes the air) in multiple stages. Generally, in the first combustion stage, the air-fuel mixture is fuel rich. In a fuel rich environment, all the oxygen will be consumed in reactions with the fuel, leaving no excess oxygen available to react with nitrogen to produce thermal NOx. In the secondary and tertiary stages, the combustion zone is maintained in a fuel-lean environment. The excess air in these stages helps to reduce the flame temperature so that the reaction between the excess oxygen with nitrogen is minimized.

The use of flue gas re-circulation (FGR) can reduce NOx emissions by 60% to 70%. In an FGR system, a portion of the flue gas is re-circulated back to the inlet air. As flue gas is composed mainly of nitrogen and the products of combustion, it is much lower in oxygen than the inlet air and contains virtually no combustible hydrocarbons to burn. Thus, flue gas is practically inert. The addition of an inert mass of gas to the combustion reaction serves to absorb heat without producing heat, thereby lowering the flame temperature. Since thermal NOx is formed by high flame temperatures, the lower flame temperatures produced by FGR serve to reduce thermal NOx.

There is no proposed change in any emission control devices in this project. The only proposed change is to replace the alternate monitoring scheme requirements with Predictive Emission Monitoring System (PEMS) requirements.

VII. General Calculations

As is explained in the Compliance section below, this project is not considered a Rule 2201 Modification, as defined in Section 3.26, and is not subject to the requirements of Rule 2201. Therefore, formal calculations for Rule 2201 are not necessary. Potential to emit calculations will be shown for reference purposes.

Potential to Emit

The following emissions for boiler S-525-42 were taken from project S-1094099:

Potential to Emit (S-525-42)		
Pollutant	[lb/day]	[lb/year]
NO_X	46.7	17,029
SO_X	12.3	4,494
PM_{10}	32.8	11,984
CO	159.8	58,342
VOC	23.8	8,672

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

As noted in Section VII of this engineering evaluation, the proposed modification does not constitute an NSR modification. Pursuant to section 3.26 of District Rule 2201, a modification is defined as:

3.26.1.1 Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.

The proposed modification does not result in a change in the hour of operation, production rate or method of operation which necessitates a change in permit conditions.

3.26.1.2 Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. Routine replacement shall not be considered to be a structural change.

The proposed modification does not constitute a structural change or addition to an existing emissions unit which necessitates a change in permit conditions.

3.26.1.3 An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.

The proposed modification does not result in an increase in emissions from any emissions unit.

3.26.1.4 Addition of any new emissions unit which is subject to District permitting requirements.

The proposed modification does not result in the addition of any new emissions units.

3.26.1.5 A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

The proposed modification does not change a permit term or condition to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

As discussed above, the modification to replace the alternate monitoring scheme with a PEMS does not constitute a modification. Therefore, it is not subject to the requirements of District Rule 2201.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is a Minor Modification to the Title V Permit pursuant to Section 3.20 of this rule:

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
   a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
   b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

Please note that in project S-1083802, ATC S-525-42-0 authorized the installation of a PEMS with final approval of the proposed system to be obtained through EPA as required by the following condition:

- Permittee shall submit to the EPA Regional Administrator for approval a plan that identifies the operating conditions to be monitored under 40 CFR 60.48b (g)(2) and the records to be maintained under 60.49b (j). This plan shall be submitted to the EPA Regional Administrator for approval within 360 days of the initial startup of the affected facility. [District Rule 4001]

With this application, the applicant is requesting to incorporate the requirements of EPA Performance Standard 16 as authorized in a letter dated April 19, 2011 from EPA to the permittee. Therefore, detailing the specific requirements for a PEMS that had previously been approved does not relax monitoring, reporting, or recordkeeping requirement of the permit, and this project can be considered a Minor Modification of the Title V Permit.

As discussed above, the facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment. Since installation of the PEMS had previously been authorized and this project only specifies the requirements of the PEMS, the permittee will be able to continue operating the PEMS. After the Title V administrative amendment application is finalized, the PEMS requirements in the ATC will be added to the Title V permit.

Rule 4001 New Source Performance Standards

<u>40 CFR 60 – Subpart Db</u>

40 CFR Part 60 Subpart Db applies to Industrial-Commercial-Institutional Steam Generating Units greater than 100 MMBtu/hr that commence construction, modification, or reconstruction after 6/19/84. Therefore, this subpart applies to boiler S-525-42, which is rated at 180 MMBtu/hr.

No newly constructed or reconstructed units are proposed in this project, nor is the unit being modified. 40 CFR Part 60, Subpart A, section 14, defines the meaning of modification to which the standards are applicable. §60.14, paragraph (e)(5) states that the following will not be considered as a modification: "the addition or use of any system or device whose primary funtion is the reduction of air pollutants, except when an emission control system is removed or replaced by a system which the Administrator determines to be less environmentally beneficial." Therefore, continued compliance with the currently applicable sections is expected as documented in project S-1083802, which resulted in the issance of ATC S-525-42-0.

This ATC application was submitted solely to incorporate all applicable EPA Performance Specification 16 requirements, which is EPA's approval of the PEMS for boiler S-525-42.

Based on the size of the boiler (180 MMBtu/hr) and the fuel being fired (natural gas), §60.46b and §60.48b require the permittee to install, certify, and operate a NOx CEMS to quantify the boiler's NOx emissions. The monitoring system must be used to conduct a 30-day performance test to demonstrate compliance with the applicable NOx emission limit in §60.44b. Thereafter, the monitoring system may also be used to calculate a 30-day rolling average NOx emission rate at the end of each boiler operating day. However, under the provisions of §60.13(i), upon receipt and consideration of written application, the Administrator

(USEPA) may approve alternatives to any monitoring procedures or requirements of this part. Thus, LOL submitted a request to USEPA to operate a PEMS in lieu of CEMS to conduct ongoing NOx emissions monitoring.

In a letter dated April 19, 2011, USEPA approved LOL's request to operate an alternative NOx PEMS for boiler #8 (permit unit S-525-42) in lieu of a NOx CEMS subject to the following conditions:

1. At all times the PEMS must be operated in accordance with the requirements contained in EPA Performance Specification 16 for Predictive Emissions Monitoring Systems and Amendments to Testing and Monitoring Provisions. See 56 Fed. Reg. 12575 (March 25, 2009);
2. All records related to the operation of the PEMS that are required by NSPS Subpart Db and EPA Performance Specification 16 must be kept in a form suitable for inspection for a period of at least five (5) years; and
3. LOL must submit a permit application to the SJVAPCD (with a copy to EPA, attn: Mark Sims, AIR-5) requesting that the District modify LOL's Title V permit to incorporate all applicable EPA Performance Specification 16 requirements for LOL Boiler #8.

Therefore, the following conditions related to PEMS will be added to the ATC to ensure compliance with the applicable EPA's requirements:

- At all times the PEMS must be operated in accordance with the requirements contained in EPA Performance Specification 16 for Predictive Emissions Monitoring Systems and Amendments to Testing and Monitoring Provisions. See 56 Fed. Reg. 12575 (March 25, 2009). [District Rule 1080]

- All records related to the operation of the PEMS that are required by NSPS Subpart Db and EPA Performance Specification 16 must be kept in a form suitable for inspection for a period of at least five (5) years. [District Rule 1080]

- The sensor evaluation system must check the integrity of each PEMS input at least daily. [District Rule 1080]

- The 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 of EPA Performance Specification 16. In such cases, a bias factor must be used to correct the PEMS data. [District Rule 1080]

- Permittee shall perform a RAA consisting of at least three 30-minute portable analyzer or RM determinations each quarter a RATA is not performed as specified in Section 9.3 of EPA Performance Specification 16. The average of the 3 portable analyzer or RM determinations must not differ from the simultaneous PEMS average value by more than 10 percent of the analyzer or RM value or the test is failed. [District Rule 1080]

- If a PEMS passes all quarterly RAAs in the first year and also passes the subsequent yearly RATA in the second year, the permittee may elect to perform a single mid-year RAA in the second year in place of the quarterly RAAs as specified in Section 9.3 of EPA Performance Specification 16. This option may be repeated, but only until the PEMS fails either a mid-year RAA or a yearly RATA. When such a failure occurs, you must resume quarterly RAAs in the quarter following the failure and continue conducting quarterly RAAs until the PEMS successfully passes both a year of quarterly RAAs and a subsequent RATA. [District Rule 1080]

- The calculated F-value (as specified in Section 13.3 of EPA Performance Specification 16) shall not exceed the critical F-value at the 95-percent confidence level for the PEMS to be acceptable. [District Rule 1080]

- The calculated r-value (as calculated in EPA Performance Specification 16) must be greater than or equal to 0.8 for the PEMS correlation to be acceptable. [District Rule 1080]

- The PEMS relative accuracy (RA) must not exceed 10 percent if the PEMS measurements are greater than 100 ppm or 0.2 lb/MMBtu. The RA must not exceed 20 percent if the PEMS measurements are between 100 ppm (or 0.2 lb/MMBtu) and 10 ppm (or 0.05 lb/MMBtu). For measurements below 10 ppm, the absolute mean difference between the PEMS measurements and the RM measurements must not exceed 2 ppm. [District Rule 1080]

Therefore, continued compliance with Subpart Db requirements is expected.

Rule 4101 Visible Emissions

Per Section 5.0, no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). As the boiler is fired solely on natural gas, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. Also, based on past inspections of the facility continued compliance is expected.

Rule 4102 Nuisance

Section 4.0 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations provided the equipment is well maintained. Therefore, compliance with this rule is expected.

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

As demonstrated above, there are no increases in emissions associated with this project, therefore a health risk assessment is not necessary and no further risk analysis is required.

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

F-Factor for NG: 8,578 dscf/MMBtu at 60 °F
PM10 Emission Factor: 0.0076 lb-PM10/MMBtu
Percentage of PM as PM10 in Exhaust: 100%
Exhaust Oxygen (O_2) Concentration: 3%
Excess Air Correction to F Factor = $\frac{20.9}{(20.9 - 3)}$ = 1.17

$$GL = \left(\frac{0.0076\ lb-PM}{MMBtu} \times \frac{7{,}000\,grain}{lb-PM}\right) / \left(\frac{8{,}578\ ft^3}{MMBtu} \times 1.17\right)$$

$$GL = 0.0053\ grain/dscf < 0.1\,grain/dscf$$

Therefore, compliance with District Rule 4201 requirements is expected.

Rule 4301 Fuel Burning Equipment

This rule specifies maximum emission rates in lb/hr for SO_2, NO_2, and combustion contaminants (defined as total PM in Rule 1020). This rule also limits combustion contaminants to ≤ 0.1 gr/scf. According to AP 42 (Table 1.4-2, footnote c), all PM emissions from natural gas combustion are less than 1 μm in diameter.

District Rule 4301 Limits			
Pollutant	NO_2	Total PM	SO_2
S-525-42 (lb/hr)	1.44	1.39	0.51
Rule Limit (lb/hr)	140	10	200

The above table indicates compliance with the maximum lb/hr emissions in this rule; therefore, continued compliance is expected.

Rule 4304 Equipment Tuning Procedure for Boilers, Steam Generators and Process Heaters

Pursuant to District Rules 4305 and 4306, Section 6.3.1, the boiler is not required to be tuned since the facility implements a District approved Alternate Monitoring scheme where the applicable emission limits are periodically monitored. Therefore, the unit is not subject to this rule.

Rule 4305 Boilers, Steam Generators and Process Heaters – Phase 2

The unit is natural gas-fired with a maximum heat input of 180 MMBtu/hr. Pursuant to Section 2.0 of District Rule 4305, the unit is subject to District Rule 4305, Boilers, Steam Generators and Process Heaters – Phase 2.

In addition, the unit is also subject to District Rule 4306, Boilers, Steam Generators and Process Heaters – Phase 3.

Since emissions limits of District Rule 4306 and all other requirements are equivalent or more stringent than District Rule 4305 requirements, compliance with District Rule 4306 requirements will satisfy requirements of District Rule 4305.

Therefore, compliance with District Rule 4305 requirements is expected and no further discussion is required.

Rule 4306 Boilers, Steam Generators and Process Heaters – Phase 3

The unit is natural gas-fired with a maximum heat input of 180 MMBtu/hr. Pursuant to Section 2.0 of District Rule 4306, the unit is subject to District Rule 4306, Boilers, Steam Generators and Process Heaters – Phase 3.

Since emissions limits of District Rule 4320 and all other requirements are equivalent or more stringent than District Rule 4306 requirements, compliance with District Rule 4320 requirements will satisfy requirements of District Rule 4306.

Therefore, compliance with District Rule 4306 requirements is expected and no further discussion is required.

Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr

Section 5.0, Requirements

Section 5.1 of the rule requires 1), compliance with the NOx and CO emissions limits listed in Table 1 of Section 5.2 or 2), payment of an annual emissions fee to the District as specified in Section 5.3 and compliance with the control requirements specified in Section 5.4; or 3), as stated in Section 5.1.3, comply with the applicable Low-use Unit requirements of Section 5.5.

Section 5.2, NOx and CO Emission Limits

The boiler meets the Standard Schedule NOx emissions limit (7 ppmv @ 3% O2) for units > 20 MMBtu/hr.

Rule 4320 Emissions Limits				
Category	Operated on gaseous fuel		Operated on liquid fuel	
	NO_X Limit	CO Limit	NO_X Limit	CO Limit
B. Units with a total rated heat input > 20.0 MMBtu/hr, except for Categories C through G units	a) Standard Schedule 7 ppmv or 0.008 lb/MMBtu; or b) Enhanced Schedule 5 ppmv or 0.0062 lb/MMBtu	400 ppmv	40 ppmv or 0.052 lb/MMBtu	400 ppmv

The boiler's NOx emission factor is 7 ppmvd @ 3% O_2 (0.008 lb/MMBtu), and its CO emission factor is 50 ppmvd @ 3% O_2 and 0.036 lb/MMBtu.

Therefore, compliance with Section 5.1 of District Rule 4320 is expected.

Section 5.3, Annual Fee Calculation

The boiler meets the emissions limits requirements of Section 5.1; therefore, this section is not applicable.

Section 5.4, Particulate Matter Control Requirements

Section 5.4 of the rule requires one of three options for control of particulate matter: 1) combustion of PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases, 2) limit fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic, 3) install and properly operate an emission control system that reduces SO2 emissions by at least 95% by weight; or limit exhaust SO2 to less than or equal to 9 ppmv corrected to 3.0% O2.

The subject boiler is fired only on PUC-regulated natural gas; therefore, the requirements of this section are satisfied.

Section 5.5, Low-use Unit

The subject boiler is not a Low-use Unit; therefore, the requirements of Section 5.5 do not apply.

Section 5.6, Startup and Shutdown Provisions

Applicable emissions limits are not required during startup and shutdown provided The duration of each start-up or each shutdown shall not exceed two hours, the emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown or operator has submitted an application for a Permit to Operate condition to allow more than two hours for each start-up or each shutdown provided the operator meets all of the conditions specified in Sections 5.6.3.1 through 5.6.3.3.

The boiler permits does not have special start-up and shutdown conditions.

Section 5.7, Monitoring Provisions

Section 5.7 requires either use of APCO-approved Continuous Emissions Monitoring System (CEMS) for NOx, CO, and oxygen, or implementation of an APCO-approved Alternate Monitoring System consisting of the following:

5.7.1.1 Periodic NOx and CO exhaust emission concentrations,
5.7.1.2 Periodic exhaust oxygen concentration,
5.7.1.3 Flow rate of reducing agent added to exhaust,
5.7.1.4 Catalyst inlet and exhaust temperature,
5.7.1.5 Catalyst inlet and exhaust oxygen concentration,
5.7.1.6 Periodic flue gas recirculation rate, or
5.7.1.7 Other operational characteristics.

The permittee currently uses pre-approved alternate monitoring scheme A (pursuant to District Policy SSP-1105), which requires that monitoring of NO_X, CO, and O_2 exhaust concentrations shall be conducted at least once per month (in which a source test is not performed) using a portable analyzer. However, the permittee proposes to replace these alternate monitoring requirements with the PEMS requirements approved by EPA, which will continuously monitor emissions based the pressure compensated fuel flow, excess O2, FGR damper position, and humidity. The proposed PEMS has been approved by EPA as an alternative to CEMS as is explained in the 40 CFR – Subpart Db discussion earlier. Therefore, compliance with this section is expected.

<u>Section 5.7.6, Monitoring SOx Emissions</u>

For operators complying with one of the PM10 emissions control options, the rule requires an annual fuel analysis to be submitted to the District. The following condition ensures compliance with this section:

- Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.3.2]

Section 5.8, Compliance Determination

Section 5.8.1 requires that the operator of any unit shall have the option of complying with either the applicable heat input (lb/MMBtu) emission limits or the concentration (ppmv) emission limits specified in Section 5.2. The emission limits selected to demonstrate compliance shall be specified in the source test proposal pursuant to Rule 1081 (Source Sampling). Therefore, the following condition will be listed on the permit as follows:

- {2976} The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320]

Section 5.8.2 requires that all emissions measurements be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0.

- {2972} All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320]

Section 5.8.5 states that for emissions source testing performed pursuant to Section 6.3.1 for the purpose of determining compliance with an applicable standard or numerical limitation of this rule, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit.

- {2980} For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320]

Section 6.1, Recordkeeping

Section 6.1 requires that the records required by Sections 6.1.1 through 6.1.5 shall be maintained for five calendar years and shall be made available to the APCO and EPA upon request. Failure to maintain records or information contained in the records that demonstrate noncompliance with the applicable requirements of this rule shall constitute a violation of this rule. The following condition ensures compliance:

- {2983} All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320]

Section 6.1.1 requires that a unit operated under the exemptions of Section 4.2 shall monitor and record, for each unit, the cumulative annual hours of operation.

The exemptions of Section 4.2 are not proposed. Therefore, this section is not applicable.

Section 6.1.2 requires the operator to record of the amount of fuel use at least on a monthly basis for each Low-use Unit. The subject boilers are not Low-use Units; therefore, this section is not applicable.

Section 6.1.3 requires that the operator of a low-use unit maintain records to verify that the required tune-up and the required monitoring of the operational characteristics of the unit have been performed. The subject units are not low-use units; therefore, this subsection is not applicable.

Section 6.1.4 requires the operator performing start-up or shutdown of a unit to keep records of the duration of start-up or shutdown. Special startup and shutdown provisions have not been proposed, so this subsection is not applicable.

Section 6.1.5 requires the operator of any unit firing on liquid fuel during a PUC-quality natural gas curtailment period pursuant to Section 5.4.2 shall record the sulfur content of the fuel, amount of fuel used, and duration of the natural gas curtailment period. The subject boiler is not authorized to combust liquid fuel and therefore this section does not apply.

Section 6.2, Test Methods

Section 6.2 identifies the following test methods as District-approved source testing methods for the pollutants listed:

Pollutant	Units	Test Method Required
NO_X	ppmv	EPA Method 7E or ARB Method 100
NO_X	lb/MMBtu	EPA Method 19
CO	ppmv	EPA Method 10 or ARB Method 100
Stack Gas O_2	%	EPA Method 3 or 3A, or ARB Method 100
Stack Gas Velocities	ft/min	EPA Method 2
Stack Gas Moisture Content	%	EPA Method 4
Oxides of sulfur		EPA Method 6C, EPA Method 8, or ARB Method 100
Total Sulfur as Hydrogen Sulfide (H_2S) Content		EPA Method 11 or EPA Method 15, as appropriate.
Sulfur Content of Liquid Fuel		ASTM D 6920-03 or ASTM D 5453-99

Section 6.2.8.2 states that the SOx emission control system efficiency shall be determined using the following:

% Control Efficiency = $[(C_{SO2,\ inlet} - C_{SO2,\ outlet}) / C_{SO2,\ inlet}] \times 100$

The boilers combust PUC quality natural gas and are not equipped with a SOx control system.

Therefore, the following permit conditions will remain on the permit:

- {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]

- {2977} NO_X emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320]

- {2978} CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320]

- {2979} Stack gas oxygen (O_2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320]

Section 6.3, Compliance Testing

Section 6.3.1 requires that this unit be tested to determine compliance with the applicable requirements of section 5.2 not less than once every 12 months (no more than 30 days before or after the required annual source test date). Upon demonstrating compliance on two consecutive compliance source tests, the following source test may be deferred for up to thirty-six months.

Section 6.3.1.1 states that units that demonstrate compliance on two consecutive 12-month source tests may defer the following 12-month source test for up to 36 months (no more than 30 days before or after the required 36-month source test date). During the 36-month source testing interval, the operator shall tune the unit in accordance with the provisions of Section 5.5.1 (Low-use Units), and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer to ensure compliance with the applicable emission limits specified in Section 5.2.

Section 6.3.1.2 states that tune-ups required by Sections 5.5.1 and 6.3.1 do not need to be performed for units that operate and maintain an APCO approved CEMS or an APCO approved Alternate Monitoring System where the applicable emission limits are periodically monitored.

Applicant has proposed a PEMS; therefore, tuning is not required.

Section 6.3.1.3 states that if the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits specified in Section 5.2, the source testing frequency shall revert to at least once every 12 months.

- Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320]

- {110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

Sections 6.3.2.1 through 6.3.2.7 address the requirements of group testing, which do not apply to the boiler.

Section 6.4, Emission Control Plan (ECP)

Section 6.4.1 requires that the operator of any unit shall submit to the APCO for approval an Emissions Control Plan according to the compliance schedule in Section 7.0 of District Rule 4320. An ECP has been submitted, so no further discussion is required.

Section 7.0, Compliance Schedule

Section 7.0 indicates that an operator with multiple units at a stationary source shall comply with this rule in accordance with the schedule specified in Table 1, Section 5.2 of District Rule 4320.

The unit will be in compliance with the emissions limits listed in Table 1, Section 5.2 of this rule, and periodic monitoring and source testing as required by District Rule 4320. Therefore, requirements of the compliance schedule, as listed in Section 7.1 of District Rule 4306, are satisfied. No further discussion is required.

Conditions will be incorporated into the permit in order to ensure compliance with each section of this rule as shown in the attached draft permit. Therefore, compliance with the requirements of this rule is expected.

Rule 4351 Boilers, Steam Generators and Process Heaters – Phase 1

This rule applies to boilers, steam generators, and process heaters at NO_x Major Sources that are not located west of Interstate 5 in Fresno, Kings, or Kern counties. If applicable, the emission limits, monitoring provisions, and testing requirements of this rule are satisfied when the unit is operated in compliance with Rule 4306. Therefore, compliance with this rule is expected.

Rule 4801 Sulfur Compounds

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO_2, on a dry basis averaged over 15 consecutive minutes.

Using the ideal gas equation and the emission factors presented in Section VII, the sulfur compound emissions are calculated as follows:

Volume $SO_2 = \frac{n\,RT}{P}$

With:

N = moles SO_2
T (Standard Temperature) = 60°F = 520°R
P (Standard Pressure) = 14.7 psi
R (Universal Gas Constant) = $\frac{10.73\,\text{psi}\cdot\text{ft}^3}{\text{lb}\cdot\text{mol}\cdot{}^\circ\text{R}}$

$$\frac{0.00285\,lb-SOx}{MMBtu}\times\frac{MMBtu}{8{,}578\,dscf}\times\frac{1\,lb\cdot mol}{64\,lb}\times\frac{10.73\,psi\cdot ft^3}{lb\cdot mol\cdot{}^\circ R}\times\frac{520^\circ R}{14.7\,psi}\times\frac{1{,}000{,}000\cdot parts}{million}=1.97\,\frac{parts}{million}$$

$SulfurConcentration = 1.97\frac{parts}{million}$ < 2,000 ppmv (or 0.2%)

Therefore, compliance with District Rule 4801 requirements is expected.

California Health & Safety Code 42301.6 (School Notice)

This facility is not located within 1,000 feet of a school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

There is no increase in emissions of any hazardous air pollutants as a result of this project. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Unified Air Pollution Control District (District) adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The District performed an Engineering Evaluation (this document) for the proposed project and determined that all project specific emission unit(s) are exempt from Best Available Control Technology (BACT) requirements. Furthermore, the District conducted a Risk Management Review and concludes that potential health impacts are less than significant.

Issuance of permits for emissions units not subject to BACT requirements and with health impact less than significant is a matter of ensuring conformity with applicable District rules and regulations and does not require discretionary judgment or deliberation. Thus, the District concludes that this permitting action constitutes a ministerial approval. Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which a public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

Greenhouse Gas (GHG) Significance Determination

It is determined that no other agency has or will prepare an environmental review document for the project. Thus, the District is the Lead Agency for this project.

The District's engineering evaluation (this document) demonstrates that the project would not result in an increase in project specific greenhouse gas emissions since there is no increase in emissions. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

District CEQA Findings

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline §15031 (Existing Facilities), and finds that the project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Issue Authority to Construct permit S-525-42-4 subject to the permit conditions on the attached draft Authority to Construct permit in Appendix A.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-525-42-4	3020-02-H	180 MMBtu/hr	$ 1030.00

Appendices

A: Draft Authority to Construct
B: Current Permit to Operate
C: Compliance Certification
D: Copy of EPA Performance Specification 16

APPENDIX A
Draft Authority to Construct

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-525-42-4

ISSUANCE DATE: DRAFT

DRAFT

LEGAL OWNER OR OPERATOR: LAND O' LAKES, INC.
MAILING ADDRESS: 400 SOUTH M STREET
TULARE, CA 93274

LOCATION: 400 SOUTH "M" ST
TULARE, CA 93274

EQUIPMENT DESCRIPTION:
MODIFICATION OF 180 MMBTU/HR UNION IRON WORKS NATURAL GAS FIRED BOILER WITH RMB LOW NOX BURNER AND FLUE GAS RECIRCULATION: SPECIFY THE PREDICTIVE EMISSION MONITORING SYSTEM (PEMS) REQUIREMENTS AND REPLACE THE ALTERNATE MONITORING SCHEME CONDITIONS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Permittee shall comply with all applicable NSPS requirements, including monitoring, notification and reporting requirements as described in 40 CFR 60 Subparts A and Db. [District Rule 4001] Federally Enforceable Through Title V Permit
3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Only PUC quality natural gas shall be combusted in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd-NOx @ 3% O2, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmvd-CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
6. Flue gas recirculation system shall be operational at all times. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director/APCO

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DAVID WARNER, Director of Permit Services
S-525-42-4 Nov 29 2011 11:34AM – RAMIREZH Joint Inspection Required with RAMIREZH

7. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

9. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

10. At all times the PEMS must be operated in accordance with the requirements contained in EPA Performance Specification 16 for Predictive Emissions Monitoring Systems and Amendments to Testing and Monitoring Provisions. See 56 Fed. Reg. 12575 (March 25, 2009). [District Rule 1080] Federally Enforceable Through Title V Permit

11. All records related to the operation of the PEMS that are required by NSPS Subpart Db and EPA Performance Specification 16 must be kept in a form suitable for inspection for a period of at least five (5) years. [District Rule 1080] Federally Enforceable Through Title V Permit

12. The sensor evaluation system must check the integrity of each PEMS input at least daily. [District Rule 1080] Federally Enforceable Through Title V Permit

13. The 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 of EPA Performance Specification 16. In such cases, a bias factor must be used to correct the PEMS data. [District Rule 1080] Federally Enforceable Through Title V Permit

14. Permittee shall perform a RAA consisting of at least three 30-minute portable analyzer or RM determinations each quarter a RATA is not performed as specified in Section 9.3 of EPA Performance Specification 16. The average of the 3 portable analyzer or RM determinations must not differ from the simultaneous PEMS average value by more than 10 percent of the analyzer or RM value or the test is failed. [District Rule 1080] Federally Enforceable Through Title V Permit

15. If a PEMS passes all quarterly RAAs in the first year and also passes the subsequent yearly RATA in the second year, the permittee may elect to perform a single mid-year RAA in the second year in place of the quarterly RAAs as specified in Section 9.3 of EPA Performance Specification 16. This option may be repeated, but only until the PEMS fails either a mid-year RAA or a yearly RATA. When such a failure occurs, you must resume quarterly RAAs in the quarter following the failure and continue conducting quarterly RAAs until the PEMS successfully passes both a year of quarterly RAAs and a subsequent RATA. [District Rule 1080] Federally Enforceable Through Title V Permit

16. The calculated F-value (as specified in Section 13.3 of EPA Performance Specification 16) shall not exceed the critical F-value at the 95-percent confidence level for the PEMS to be acceptable. [District Rule 1080] Federally Enforceable Through Title V Permit

17. The calculated r-value (as calculated in EPA Performance Specification 16) must be greater than or equal to 0.8 for the PEMS correlation to be acceptable. [District Rule 1080] Federally Enforceable Through Title V Permit

18. The PEMS relative accuracy (RA) must not exceed 10 percent if the PEMS measurements are greater than 100 ppm or 0.2 lb/MMBtu. The RA must not exceed 20 percent if the PEMS measurements are between 100 ppm (or 0.2 lb/MMBtu) and 10 ppm (or 0.05 lb/MMBtu). For measurements below 10 ppm, the absolute mean difference between the PEMS measurements and the RM measurements must not exceed 2 ppm. [District Rule 1080] Federally Enforceable Through Title V Permit

19. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit

22. Operator shall ensure that all required source testing conforms to the compliance testing procedures described in District Rule 1081. [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

23. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 2520, 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

24. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

26. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

29. Operator shall monitor and record for each unit the hhv and cumulative annual use of fuel. [District Rules 4320, 4351, and 2520] Federally Enforceable Through Title V Permit

30. Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520] Federally Enforceable Through Title V Permit

31. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 405 (Madera), Rule 408 (Fresno), Rule 408.2 (Merced) and 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin); Rule 402(Madera) and 404 (all seven remaining counties in the San Joaquin Valley); SJVUAPCD Rule 4301. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 405 (Madera), 408 and 409 (Kern), and 408 (all six remaining counties in the San Joaquin Valley); Rule 404 (Madera) 406 (Fresno), and 407 (all six remaining counties in the San Joaquin Valley); SJVUAPCD Rule 4801. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 4201, 4301, 4305, 4306, and 4351. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). [District Rule 2520] Federally Enforceable Through Title V Permit

35. The requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

36. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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APPENDIX B
Current Permit to Operate

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-525-42-3 **EXPIRATION DATE:** 10/31/2015

EQUIPMENT DESCRIPTION:
180 MMBTU/HR UNION IRON WORKS NATURAL GAS FIRED BOILER WITH RMB LOW NOX BURNER AND FLUE GAS RECIRCULATION

PERMIT UNIT REQUIREMENTS

1. Permittee shall comply with all applicable NSPS requirements, including monitoring, notification and reporting requirements as described in 40 CFR 60 Subparts A and Db. [District Rule 4001] Federally Enforceable Through Title V Permit
2. Permittee shall submit to the EPA Regional Administrator for approval a plan that identifies the operating conditions to be monitored under 40 CFR 60.48b (g)(2) and the records to be maintained under 60.49b (j). This plan shall be submitted to the EPA Regional Administrator for approval within 360 days of the initial startup of the affected facility. [District Rule 4001] Federally Enforceable Through Title V Permit
3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Only PUC quality natural gas shall be combusted in this unit. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
6. Flue gas recirculation system shall be operational at all times. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least on a monthly basis using District approved portable analyzers. [District Rules 4305, 4306, 4320, 4351, and 2520 9.3.2] Federally Enforceable Through Title V Permit
8. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, 4320, 4351, and 2520 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

10. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

11. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

12. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

13. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081,7.2] Federally Enforceable Through Title V Permit

16. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

17. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

18. Operator shall ensure that all required source testing conforms to the compliance testing procedures described in District Rule 1081. [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

19. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rule 2520, 9.3.2; 4305, 6.2.1; 4306; 4320; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit

25. Operator shall monitor and record for each unit the hhv and cumulative annual use of fuel. [District Rules 4320, 4351, 6.1.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 405 (Madera), Rule 408 (Fresno), Rule 408.2 (Merced) and 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin); Rule 402(Madera) and 404 (all seven remaining counties in the San Joaquin Valley); SJVUAPCD Rule 4301. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

28. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 405 (Madera), 408 and 409 (Kern), and 408 (all six remaining counties in the San Joaquin Valley); Rule 404 (Madera) 406 (Fresno), and 407 (all six remaining counties in the San Joaquin Valley); SJVUAPCD Rule 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 4201, 4301, 4305, 4306, and 4351. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. The requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

32. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

APPENDIX C
Compliance Certification

RECEIVED
JUL 26 2011
SJVAPCD
Southern Region

San Joaquin Valley
Unified Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

[X] SIGNIFICANT PERMIT MODIFICATION
[ ] MINOR PERMIT MODIFICATION
[ ] ADMINISTRATIVE AMENDMENT

COMPANY NAME: LAND O' LAKES, Inc.	FACILITY ID: S – 525
1. Type of Organization:[X] Corporation [ ] Sole Ownership [ ] Government [ ] Partnership [ ] Utility	
2. Owner's Name:	
3. Agent to the Owner:	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial **all** circles for confirmation):

SG (a) Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).

SG (b) Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.

SG (c) Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.

SG (d) Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

Stu Giffin — 7/20/11

Signature of Responsible Official — Date

Stu Giffin

Name of Responsible Official (please print)

Director of Operations

Title of Responsible Official (please print)

APPENDIX D
Copy of EPA Performance Specification 16

EPA-APPROVED SOURCE-SPECIFIC REQUIREMENTS

Source name	Permit/order or registration number	State effective date	EPA approval date	40 CFR part 52 citation
*	*	*	*	*
Reynolds Consumer Products Company.	Registration No. 50534	10/1/08	03/25/09 [Insert page number where the document begins].	52.2420(d)(12)

* * * * *

[FR Doc. E9-6663 Filed 3-24-09; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 60 and 63

[EPA-HQ-OAR-2003-0074; FRL-8785-4]

RIN 2060-AG21

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

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is taking final action to promulgate Performance Specification (PS) 16 for predictive emissions monitoring systems (PEMS). Performance Specification 16 provides testing requirements for assessing the acceptability of PEMS when they are initially installed. Currently, there are no Federal rules requiring the use of PEMS; however, some sources have obtained Administrator approval to use PEMS as alternatives to continuous emissions monitoring systems (CEMS). Other sources may desire to use PEMS in cases where initial and operational costs are less than CEMS and process optimization for emissions control may be desirable. Performance Specification 16 will apply to any PEMS required in future rules in 40 CFR Parts 60, 61, or 63, and in cases where a source petitions the Administrator and receives approval to use a PEMS in lieu of another emissions monitoring system required under the regulation. We are also finalizing minor technical amendments.

DATES: This final rule is effective on April 24, 2009.

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2003-0074. All documents in the docket are listed on the *http://www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *http://www.regulations.gov* or in hard copy at the Performance Specification 16 for Predictive Emission Monitoring Systems Docket, Docket ID No. EPA-OAR-2003-0074, EPA Docket Center, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. This Docket Facility is open from 8:30 a.m. to 4:30 p.m. Monday through Friday excluding legal holidays. The docket telephone number is (202) 566-1742. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744.

FOR FURTHER INFORMATION CONTACT: Mr. Foston Curtis, Air Quality Assessment Division, Office of Air Quality Planning and Standards (E143-02), Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number (919) 541-1063; fax number (919) 541-0516; e-mail address: *curtis.foston@epa.gov.*

SUPPLEMENTARY INFORMATION:

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H. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer and Advancement Act
J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
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I. Does This Action Apply to Me?

Predictive emission monitoring systems are not currently required in any Federal rule. However, they may be used under certain New Source Performance Standards (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 emissions monitoring tool. The major entities that are potentially affected by Performance Specification 16 and the amendments to the subparts are included in the following tables. Performance Specification 16 will neither apply to existing PEMS nor those covered under Subpart E of 40 CFR part 75.

Regulated Entities. Categories and entities potentially affected include the following:

TABLE 1—MAJOR ENTITIES POTENTIALLY AFFECTED BY THIS ACTION: PERFORMANCE SPECIFICATION 16

Category	NAICS[a]	Examples of regulated entities
Industry	333611	Stationary Gas Turbines.
Industry	332410	Industrial, Commercial, Institutional Steam Generating Units.

[a] North American Industry classification system.

TABLE 2—MAJOR ENTITIES POTENTIALLY AFFECTED BY THIS ACTION: AMENDMENTS TO PERFORMANCE SPECIFICATION 11 AND PROCEDURES 1 AND 2, APPENDIX F, PART 60

Category	NAICS[a]	Examples of regulated entities
Industry	333298	Portland Cement Manufacturing.
Industry	562211	Hazardous Waste Incinerators.

[a] North American Industry Classsification System.

TABLE 3—MAJOR ENTITIES POTENTIALLY AFFECTED BY THIS ACTION: AMENDMENTS TO METHOD 24, APPENDIX A, PART 60

Category	NAICS[a]	Examples of regulated entities
Industry	326211	Rubber Tire Manufacturing.
Industry	323111	Flexible Vinyl and Urethane Coating and Printing.
Industry	334613	Magnetic Tape Coating Facilities.
Industry	326199	Surface Coating of Plastic Parts for Business Machines.
Industry	332812	Polymeric Coating of Supporting Substrates Facilities.
Industry	337124	Surface Coating of Metal Furniture.
Industry	336111	Automobile and Light Duty Truck Surface Coating.
Industry	323111	Graphic Arts Industry: Publication Rotogravure Printing.
Industry	322222	Pressure Sensitive Tape and Label Surface Coating Operations.
Industry	421620	Industrial Surface Coating: Large Appliances.
Industry	335931	Metal Coil Surface Coating.
Industry	332812	Beverage Can Surface Coating.
Industry	33641	Aerospace.
Industry	.....	Boat and Ship Manufacturing and Repair Surface Coating.
Industry	.....	Fabric Printing, Coating, and Dyeing.
Industry	.....	Leather Finishing.
Industry	.....	Miscellaneous Coating Manufacturing.
Industry	.....	Miscellaneous Metal Parts and Products.
Industry	.....	Paper and Other Web Surface Coating.
Industry	.....	Plastic Parts Surface Coating.
Industry	.....	Printing and Publishing Surface Coating.
Industry	.....	Wood Building Products.
Industry	.....	Wood Furniture.

[a] North American Industry classificatiion System.

TABLE 4—MAJOR ENTITIES POTENTIALLY AFFECTED BY THIS ACTION: AMENDMENT TO METHOD 303, APPENDIX A, PART 63

Category	NAICS[a]	Examples of regulated entities
Industry	33111111	Coke Ovens.

[a] North American Industry classsification System.

These tables are not intended to be exhaustive, but rather to provide a guide for readers regarding entities likely to be affected by these actions. These tables list examples of the types of entities EPA is now aware could potentially be affected by these final actions. Other types of entities not listed could also be affected. 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.

II. Where Can I Obtain a Copy of This Action?

In addition to being available in the docket, an electronic copy of this rule will also be available on the Worldwide Web (www) through the Technology Transfer Network (TTN). Following the Administrator's signature, a copy of the final rule will be placed on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg*. The TTN provides information and technology exchange in various areas of air pollution control.

III. Background

Performance Specification 16 and the amendments to PS–11, Procedures 1 and 2, Method 24, and Method 303 were proposed in the **Federal Register** on August 8, 2005 with a public comment period that ended October 7, 2005. A public commenter asked that the comment period be reopened to allow for additional time to prepare their response since they were a leading vendor of PEMS and were significantly impacted by the rule. We reopened the comment period for two weeks, from November 2–16, 2005. A total of 42 comment letters were received on the proposed rule. Most comment letters pertained to PS–16 and contained multiple comments. We have compiled and responded to the public comments and made appropriate changes to the rule based on the comments.

IV. This Action

A. PS–16

This action finalizes PS–16 for PEMS. This performance specification was originally proposed by EPA on August 8, 2005 (70 FR 45608). Performance Specification 16 establishes procedures that must be used to determine whether a PEMS is acceptable for use in demonstrating compliance with applicable requirements. Predictive emission monitoring systems predict source emissions indirectly using process parameters instead of measuring them directly.

Additionally, the following amendments are made to the noted testing and monitoring provisions.

B. Method 24 of Appendix A–7 of Part 60

Method 24, part 60, Appendix A–7 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 have amended Method 24 to cite this optional method.

C. Performance Specification 11 of Appendix B of Part 60

The publication on January 12, 2004 of PS–11 for Appendix B and Procedure 2 for part 60, Appendix F contained technical and typographical errors and unclear instructions. We have revised 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, corrected errors in Equations 11–22, 11–27, and 11–37, corrected 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 added a note following paragraph (5)(v) concerning the application of correlation equations to calculate particulate matter (PM) concentrations using the response data from an operating PM CEMS. We have also renumbered some equations and references for clarification, consistency, and accuracy.

D. Procedures 1 and 2 of Appendix F of Part 60

In Procedure 1 of Appendix F of part 60, we revised obsolete language that describes the standard reference material that is required, and in Procedure 2, we added a needed equation for calculating an absolute correlation audit based on the applicable standard.

E. Method 303 of Appendix A of Part 63

In Method 303 of Appendix A to part 63, a statement on varying the time of day runs are taken that was deleted by mistake in a recent amendment of the method has been added.

V. Public Comments on the Proposed Rule

A more detailed summary of the public comments and our responses can be found in the Summary of Public Comments and Responses document, which is available from several sources (see **ADDRESSES** section). The major public comments are summarized by subject as follows:

A. Parameter Operating Level Terminology

Several commenters suggested we revise the key parameter operating level used for the relative accuracy (RA) test from "normal" to "mid." It was noted that some units normally operate in the high or low levels and that a revised listing of mid level would ensure that the intended three levels would be evaluated. We agree with the commenters and changed the reference from "normal" to "mid."

B. PS–16 Applicability to Market-Based Programs

Several commenters objected to applying PS–16 to PEMS that are used in a market-based program. They noted that market-based PEMS are already covered in Subpart E of 40 CFR part 75 and those requirements are different from proposed PS–16. This was deemed confusing from an applicability standpoint, especially for those PEMS that have already been approved under part 75. Other commenters stated that they did not understand why performance specifications for market-based monitoring were being added to 40 CFR part 60 since part 60 does not address marketing regulations. Some commenters asked whether PS–16 would apply to PEMS already in use.

We have dropped the proposed applicability of PS–16 to market-based PEMS and agree that part 75 is the better place to address market-based PEMS. Requirements for PEMS used in the part 75 market-based program are already addressed in Subpart E of part 75, and we do not believe the more stringent requirements given there for market-based PEMS are warranted for compliance monitoring under 40 CFR parts 60, 61, and 63. We note in the final rule that PS–16 applies only to PEMS that are installed after the effective date of today's action and to those used to comply with requirements in 40 CFR parts 60, 61, or 63.

C. PS–16 and the Older Draft Performance Specifications on the EPA Web Site

A number of commenters asked that the draft "Example Specifications and Test Procedures for Predictive Emission Monitoring Systems" on the EPA Web site be adopted as PS–16 instead of the proposed provisions. They note that these specifications have been used in the past to approve prospective PEMS and felt the same guidelines should be used in the future. One commenter thought a departure from the draft requirements would result in a demise in PEMS use due to the increased costs of initial certification and ongoing maintenance.

The "Example Specifications and Test Procedures for Predictive Emission Monitoring Systems" was a guidance document to give PEMS users and regulators a general idea of what could be expected of PEMS in light of the limited performance data available at

that time. It was primarily based on the existing requirements in PS–2 for CEMS and not on extensive research. The document was offered on the EMC Web site until the Agency could develop and finalize PS–16. Since then, we have acquired relative accuracy test audit (RATA) data from a number of PEMS over time, and our understanding of their capabilities has increased. This data is presented in the docket and gives a better indication of PEMS performance than what is reflected in the guidance document (*see* EPA–OAR–2003–0074–0002, 0003, and 0004 docket entries). This data confirms that the performance levels set in PS–16 are achievable by the vast majority of PEMS in the data pool and are more reflective of the technology's capabilities. We disagree with the commenter that the new requirements in PS–16 will result in the demise of PEMS due to increased cost for initial certification and ongoing maintenance.

D. PEMS Relative Accuracy Stringency vs. CEMS Stringency

Some commenters objected to the 10 percent relative accuracy limit for PEMS in PS–16 considering that the corresponding performance specifications for CEMS that are used for the same purposes have a 20 percent relative accuracy limit. They note that previous approvals of PEMS were based on the 20 percent criterion in the draft Web site performance specifications. They also argued that the added stringency of having to certify at a level twice as accurate as a CEMS under the same compliance conditions was not warranted.

The 20 percent relative accuracy limit was set for CEMS in the 1970's and reflects the performance capabilities of systems at that time. State-of-the-art CEMS are capable of much better performance as can be seen by their success under the tighter part 75 rules where a 10 percent relative accuracy is required. We have obtained performance data on a number of installed PEMS currently in use (*see* EPA–HQ–OAR–2003–0074–0002, 0003, and 0004 docket entries), and the data show an overwhelming majority of the PEMS are capable of meeting a 10 percent criterion on a repeated basis. We believe the quality of emissions data should parallel the increased capabilities of newer technologies, not the capabilities of older, outdated systems. Therefore, the 10 percent relative accuracy limit for PEMS is retained in this final rule.

E. Alternative Limits for Low Emitters

Several commenters asked that alternative relative accuracy limits be allowed for low-emitting sources. They were concerned that the 10 percent relative accuracy limit would be problematic for low-emitters because the error in the reference method measurement plays a significant part in the accuracy determination at low concentrations. One commenter noted that many permits set emission limits just above the typical emission level of the source. This results in low-emitting sources running in the 75–95 percent of the emission standard range. The proposed alternative limits would only be of use when the unit is operating either below 25 or below 10 percent of the emission standard. They thought it would be more practical to base alternative criteria on the measured concentration ranges instead of the emission standard. Two commenters suggested scaling the relative accuracy requirement such that 10 percent would be the limit for measurements over 100 ppm, 20 percent for measurements between 10 and 100 ppm, and within 2 ppm for measurements under 10 ppm.

We understand the commenters' concerns and think their suggestion for alternative criteria for low emitters is a practical idea. We have added the suggested alternative criteria for concentrations between 10 and 100 ppm (20 percent RA) and below 10 ppm (± 2 ppm difference between PEMS and reference method).

F. Statistical Tests

One commenter thought the relative accuracy requirements are, in some cases, too severe and would prevent (1) even most CEMS from certifying using standard reference method testing and (2) all but the most sophisticated PEMS from passing certification. Two commenters proposed using daily zero and span calibration checks and quarterly linearity checks as alternatives to the statistical tests and quarterly relative accuracy audits (RAA). Others recommended longer sampling times to obtain the needed data for the relative accuracy statistical tests similar to the 40 CFR part 75, Subpart E requirements. Several commenters stated that they anticipated difficulty in meeting the 0.8 r-correlation requirement in tests where process variations are small. One commenter recommended the proposed waiver of the correlation test be made permanent if the data are determined to be either auto-correlated or if the signal-to-noise ratio of the data is less than 4.

We do not believe the relative accuracy requirements are so severe as to prevent most CEMS or PEMS from certifying using standard reference method testing. Most PEMS are not amenable to daily zero and span checks or quarterly linearity checks of their sensors. The suggested long-term relative accuracy evaluation of PEMS similar to the requirements of Subpart E of part 75 would render PEMS use economically impractical under parts 60, 61, and 63. Evaluation times similar to those currently required of CEMS should be sufficient. We have taken the recommendation that the correlation test be permanently waived in cases where the data are auto-correlated or have a signal-to-noise ratio less than 4 and have made this change in PS–16.

G. Use of Portable Analyzers for the Relative Accuracy Audit

Several commenters opposed the use of portable analyzers for the quarterly relative accuracy audits. They felt the analyzers lacked sufficient accuracy to evaluate PEMS. Two commenters cited the report *"Evaluation of Portable Analyzers for Use in Quality Assuring Predictive Emission Monitoring Systems for NO_X"* (a report prepared for EPA's Clean Air Markets Division, Washington, DC, September 8, 2004) as proof of this inadequacy. They note that in the report the only analyzer that achieved accuracy better than 10 percent was the more sophisticated analyzer using the reference method methodology. Additionally, a commenter suggested that sampling problems related to sampling point location, sample conditioning, high-moisture and volume, particulate, and high temperatures would render portable analyzers ineffective. Another commenter thought that portable analyzers, which were believed to be accurate to within 20 percent, would not be able to show that PEMS are accurate to within 10 percent.

Three commenters asked that the quarterly audit requirements be removed altogether. One commenter stated that he/she did not see any added value in the audits because PEMS were thought to be inherently reliable, and two commenters urged a return to the Web site performance specification requirement to conduct biannual relative accuracy test audits instead of quarterly relative accuracy audits.

We are not aware of and commenters did not present any data that supports the idea that PEMS are inherently accurate such that their performance is guaranteed over long periods of time. The performance of PEMS, like CEMS, depends on a number of criteria that are subject to change over time. The summary and findings of the noted

providing performance specifications they can use to evaluate PEMS. Other amendments being made will correct PS–11, Procedures 1 and 2, Method 24, and Method 303. No added responsibilities or increase in implementation efforts or costs for State and local governments are being added by this action. Thus, Executive Order 13132 does not apply to this rule.

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

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). This action adds an optional monitoring tool to the monitoring provisions that have already been mandated. Thus, Executive Order 13175 does not apply to this action.

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

EPA interprets EO 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of the EO has the potential to influence the regulation. This action is not subject to EO 13045 because it does not establish an environmental standard intended to mitigate health or safety risks.

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

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

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law No. 104–113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its 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, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This action does not involve technical standards. Therefore, EPA did not consider the use of any voluntary consensus standards.

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

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

EPA has determined that this final rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment. This final rule does not relax the control measures on sources regulated by the rule and, therefore, will not cause emissions increases from these sources.

K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A Major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective April 24, 2009.

List of Subjects

40 CFR Part 60

Administrative practice and procedures, Air pollution control, Intergovernmental relations, Reporting and recordkeeping requirements.

40 CFR Part 63

Environmental protection, Air pollution control, Hazardous substances, Reporting and recordkeeping requirements.

Dated: March 16, 2009.

Lisa Jackson,

Administrator.

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

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

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

Authority: 23 U.S.C. 101; 42 U.S.C. 7401–7671q.

■ 2. Section 6.7 is added to Method 24 of Appendix A–7 to read as follows:

Appendix A–7 to Part 60—Test Methods 19 through 25E

* * * * *

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.

* * * * *

■ 3. Performance Specification 11 of Appendix B is amended as follows:

■ a. By revising Section 3.4.

■ b. By revising Section 8.6, introductory text.

■ c. By revising paragraphs (1)(ii), (1)(iii), (2), (4), and (5) of Section 12.3

■ d. By revising paragraph (3)(ii) of Section 12.4.

■ e. By revising paragraphs (2) and (3) of Section 13.2.

■ f. By adding Sections 16.8 and 16.9.

■ g. By revising Table 1 of Section 17.0 to read as follows:

Appendix B to Part 60—Performance Specifications

* * * * *

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

report on portable analyzers state that "The portable analyzers produced results that were comparable to those of the CEMS and Method 7E for the two natural gas-fired combustion sources and low concentrations tested." Portable analyzers are offered as a cheaper testing option to add flexibility to the relative accuracy audits. However, reference methods may also be used in place of portable analyzers for the relative accuracy audit. A relative accuracy audit for a validated PEMS would not be valueless but would confirm that such a PEMS is still functioning properly. Therefore, quarterly relative accuracy audits are retained and may be performed using a portable analyzer or a reference method.

H. Potential Overlap Between PS-16 and PS-17

Three commenters asked that we specifically state that PS-16 will not apply to parametric monitoring systems. We were asked to clarify that PS-16 would not cover parametric systems that are already covered under PS-17.

Performance Specification 17 applies to parametric monitoring systems (*i.e.*, those that have associated parametric limits). Performance Specification 16 applies to predictive emission monitoring systems (*i.e.*, those that have associated emission limits). This difference has been noted in PS-16.

I. Reduced Relative Accuracy Audit Frequency for Good Performance

One commenter proposed that quarterly relative accuracy audit tests be required for the first year after initial certification. If all tests are passed through the second year relative accuracy test audit (without tuning or additional training), the second year of relative accuracy audits would be waived. In cases of failed relative accuracy audit or relative accuracy test audit attempts during the year or any PEMS retraining that triggers recertification would nullify this option until the subsequent year. The commenter felt this waiver option was important to the viability of PEMS use at remote sites.

We believe the commenter's suggestion has merit but think that at least a semiannual test at a time approximately one-half year from the previous RATA is needed to prevent extended malfunctions. We have therefore revised PS-16 to allow a single RAA or RATA midway the second year if three prior quarters of RAA and a second annual RATA are passed without PEMS training or tuning.

VI. Judicial Review

Under section 307(b)(1) of the Clean Air Act (CAA), judicial review of this final rule is available by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by May 26, 2009. Under section 307(d)(7)(B) of the CAA, only an objection to this final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements established by this action may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

VII. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

This action is not a "significant regulatory action" under the terms of Executive Order 12866 (58 FR 51735, October 4, 1993) and is, therefore, not subject to review under the Executive Order.

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.* Burden is defined at 5 CFR 1320.3(b). This final rule does not add information collection requirements beyond those currently required under the applicable regulations. This final rule adds performance requirements and amends testing and monitoring requirements as necessary.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (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 this rule on small entities, small entity is defined as: (1) A small business whose parent company has fewer than 100 or 1,000 employees, or fewer than 4 billion kilowatt-hr per year of electricity usage, depending on the size definition for the affected North American Industry Classification System code; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. This final rule will not impose any requirements on small entities because it does not impose any additional regulatory requirements.

D. Unfunded Mandates Reform Act

This action contains no Federal mandates under the provisions of Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531-1538 for State, local, or tribal governments or the private sector. This action imposes no enforceable duty on any State, local or tribal governments of the private sector. Therefore, this action is not subject to the requirements of sections 202 or 205 of the UMRA. This action is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. This action adds procedures that apply when applicable parties choose to use a different monitoring tool than what is currently required. Other amendments are made to correct various errors in testing provisions.

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" is 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 final 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. This rule will benefit State and local governments by

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) * * *

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

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

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 ($\hat{y}$) 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:

$$A = \begin{bmatrix} n & S_1 & S_2 \\ S_1 & S_2 & S_3 \\ S_2 & S_3 & S_4 \end{bmatrix}, \qquad b = \begin{bmatrix} b_0 \\ b_1 \\ b_2 \end{bmatrix}, \qquad B = \begin{bmatrix} S_5 \\ S_6 \\ S_7 \end{bmatrix}.$$

$$S_1 = \sum_{i=1}^{n}(x_i), S_2 = \sum_{i=1}^{n}(x_i^2), S_3 = \sum_{i=1}^{n}(x_i^3), S_4 = \sum_{i=1}^{n}(x_i^4) \qquad \text{(Eq. 11-17)}$$

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

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:

$$C_0 = \frac{(S_2 \cdot S_4 - S_3^2)}{D}, \quad C_1 = \frac{(S_3 \cdot S_2 - S_1 \cdot S_4)}{D}, \quad C_2 = \frac{(S_1 \cdot S_3 - S_2^2)}{D},$$

$$C_3 = \frac{(nS_4 - S_2^2)}{D}, \quad C_4 = \frac{(S_1 \cdot S_2 - nS_3)}{D}, \quad C_5 = \frac{(nS_2 - S_1^2)}{D} \qquad \text{(Eq. 11-23)}$$

Where:

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

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

$$\Delta = C_0 + 2C_1x + (2C_2 + C_3)x^2 + 2C_4x^3 + C_5x^4 \qquad \text{(Eq. 11-25)}$$

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

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

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

tdf = 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:

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

Where:

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

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

$u_{n'}$ = the value indicated in Table 1 for df = (n′–3), and

vdf = 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:

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

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

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

Where:

y'_i = is the transformed value of y_i, and

$\text{Ln}(y_i)$ = the natural logarithm of the PM concentration measurement for run i.

(ii) Using the values for y', 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.

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

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', 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 $\underline{y}'$ using Equations 11–40 and 11–41:

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

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

Where:

LCL' = the lower 95 percent confidence limit for the mean value $\underline{y}'$,

UCL' = the upper 95 percent confidence limit for the mean value $\underline{y}'$,

$\underline{y}'$ = 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:

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

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 $\underline{y}'$ using Equations 11–43 and 11–44:

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

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

Where:

LTL' = the lower 95 percent tolerance limit for the mean value $\underline{y}'$,

UTL' = the upper 95 percent tolerance limit for the mean value $\underline{y}'$,

$\underline{y}'$, = 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:

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

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', 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.

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

(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', in place of the values for x_i, and the values for y', 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:

$$\hat{Y}' = b_0' + b_1 x' \quad \text{(Eq. 11-47)}$$

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', 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.

$$\min\ or\ \max = -\frac{b_1}{2b_2} \quad \text{(Eq. 11-48)}$$

* * * * *

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?

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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 * * *

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
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

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
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).

■ 4. In Appendix B, Performance Specification 16 is added to read as follows:

Appendix B to Part 60—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 (with any necessary approvals) a predictive emission monitoring system (PEMS) to show compliance with your emission limitation under 40 CFR 60, 61, or 63, you must use the procedures in this performance specification (PS) to determine whether your PEMS is acceptable for use in demonstrating compliance with applicable requirements. Use these procedures to certify your PEMS after initial installation and periodically thereafter to ensure the PEMS is operating properly. If your PEMS contains a diluent (O_2 or CO_2) measuring component and your emissions limitation is in units that require a diluent measurement (*e.g.* lbs/mm Btu), the diluent component must be tested as well. These specifications apply to PEMS that are installed under 40 CFR 60, 61, and 63 after the effective date of this performance specification. These specifications do not apply to parametric monitoring systems, these are covered under PS–17.

1.1.1 *How do I certify my PEMS after it is installed?* PEMS must pass a relative accuracy (RA) test and accompanying statistical tests in the initial certification test to be acceptable for use in demonstrating compliance with applicable requirements. Ongoing quality assurance tests also 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 that is required 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 PEMS used in determining continual compliance with an emission limit than those used to measure excess emissions. 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 properly maintaining and operating your PEMS.

2.0 Summary of Performance Specification

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

2.1 Initial PEMS Certification.

2.1.1 Excess Emissions PEMS. For a PEMS that is used for excess emission reporting, the owner or operator must perform a minimum 9-run, 3-level (3 runs at each level) RA test (see Section 8.2).

2.1.2 Compliance PEMS. For a PEMS that is used for continual compliance standards, the owner or operator must perform a minimum 27-run, 3-level (9 runs at each level) RA test (see Section 8.2). Additionally, the data must be evaluated for bias and by F-test and correlation analysis.

2.2 Periodic Quality Assurance (QA) Assessments. Owners and operators of all PEMS are required to conduct quarterly relative accuracy audits (RAA) and yearly relative accuracy test audits (RATA) to assess ongoing PEMS operation. The frequency of these periodic assessments may be shortened by successful operation during a prior year.

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. A defective sensor may be functioning properly, but because it is operating outside the approved operating envelope, the resulting predicted emission is not validated.

3.4 *Diluent PEMS* means the total equipment required to predict a diluent gas concentration or emission rate.

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 beyond 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. Systems that use fewer than 3 variables do not qualify as PEMS unless the system has been specifically approved by the Administrator for use as a PEMS. A PEMS may predict emissions data that are corrected for diluent if the relative accuracy and relevant QA tests are passed in the emission units corrected for diluent. Parametric monitoring systems that serve as indicators of compliance and have *parametric* limits but do not predict emissions to comply with an *emissions* limit are not included in this definition.

3.7 *PEMS training* means the process of developing or confirming the operation of the PEMS against a reference method under specified conditions.

3.8 *Quarter* means a quarter of a calendar year in which there are at least 168 unit operating hours.

3.9 *Reconciled Process Data* means substitute data that are generated by a sensor evaluation system to replace that of a failed sensor. Reconciled process data may not be used without approval from the Administrator.

3.10 *Relative Accuracy* means the accuracy of the PEMS when compared to a reference method (RM) at the source. The RA is the average difference between the pollutant PEMS and RM data for a specified number of comparison runs plus a 2.5 percent confidence coefficient, divided by the average of the RM tests. For a diluent PEMS, the RA may be expressed as a percentage of absolute difference between the PEMS and RM. Alternative specifications are given for units that have very low emissions.

3.11 *Relative Accuracy Audit* means a quarterly audit of the PEMS against a

portable analyzer meeting the requirements of ASTM D6522–00 or a RM for a specified number of runs. A RM may be used in place of the portable analyzer for the RAA.

3.12 *Relative Accuracy Test Audit* means a RA test that is performed at least once every four calendar quarters after the initial certification test while the PEMS is operating at the normal operating level.

3.13 *Reference Value* means a PEMS baseline value that may be established by RM testing under conditions when all sensors are functioning properly. This reference value may then be used in the sensor evaluation system or in adjusting new sensors.

3.14 *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 among themselves or any other procedure that checks sensor integrity at least daily (when operated for more than one hour in any calendar day).

3.15 *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 detail the design of your PEMS and make this available in reports and for on-site inspection. 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 the Administrator's permission on a case-by-case basis if you desire 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 envelope using graphs and data from the PEMS development process, vendor information, or engineering calculations, as appropriate. If you operate the PEMS beyond these envelopes at any time after the certification test, the data generated during this condition will not be acceptable for use in demonstrating compliance with applicable requirements. If these parameter operating envelopes are not clearly defined and supported by development data, 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 affect the output of your PEMS. You may only use the 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 eater 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 other regulation sets an upper limit for the data recorder's range.	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.	Another regulation sets an upper limit for the data recorder's range.	Must follow the other regulation
Controlled emissions		Must be 1.5 to 2.0 times 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 that is not accessible, you may be required to shut down the emissions unit to repair or replace a sensor. Conduct a new RATA after replacing a sensor. All sensors must be calibrated as often as needed but at least as often as recommended by the manufacturers.

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 obtain prior approval before using 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 the ranges of the sensor envelopes will not be considered quality assured.

6.2 Recordkeeping. All valid data recorded by the PEMS must be used to calculate the 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 begins.

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 most affects emissions (e.g., load level). Conduct the specified number of RM tests at the low (minimum to 50 percent of maximum), mid (an intermediary level between the low and high levels), and high (80 percent to maximum) key parameter operating levels, as practicable. If these levels are not practicable, vary the key parameter range as much as possible over three levels.

8.2.2 Number of RM Tests for Excess Emission PEMS. For PEMS used for excess emission reporting, conduct at least the following number of RM tests at the following key parameter operating levels:

(1) Three at a low level.

(2) Three at a mid level.

(3) Three at a high level.

You may choose to perform more than nine total 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 nine or greater 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 PEMS. For PEMS used to determine compliance, conduct at least the following number of RM tests at the following key parameter operating levels:

(1) Nine at a low level.

(2) Nine at a mid level.

(3) 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 per level as long as the total number of runs used to determine the RA at each operating level is 9 or greater.

8.2.4 Reference Method Measurement Location. Select an accessible measurement point for the RM that will ensure you measure emissions representatively. Ensure the location is at least two equivalent stack diameters downstream and half an 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:

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

(2) You measure pollutants and diluents simultaneously at the same locations.

8.2.5 Traverse Points. Select traverse points that ensure 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 requirement for 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) Alternatively, 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 may not use this alternative option after wet scrubbers or at points where two streams with different pollutant concentrations are combined. You may select different traverse points if you demonstrate and provide verification that it provides a representative sample. You may also use the traverse point specifications given the RM.

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 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. The unit may only use fuels that have been evaluated this way.

8.2.7 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 by 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 is 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.

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. 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 mid-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 using the 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. The correlation is waived if the process cannot be varied to produce a concentration change sufficient for a successful correlation test because of its technical design. In such cases, should a subsequent RATA identify a variation in the RM measured values by more than 30 percent, the waiver will not apply, and a correlation analysis test must be performed at the next RATA.

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 that your PEMS meets the performance specifications. Include in the report the documentation used to establish your PEMS parameter envelopes.

8.5 Reevaluating Your PEMS After a Failed Test, Change in Operations, or Change in Critical PEMS Parameter. After initial certification, if your PEMS fails to pass a quarterly RAA or yearly RATA, or if changes occur or are made that could 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 developed your PEMS for the emissions unit operating 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, to verify that the new conditions of 50–100 percent of range are functional. 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	All	.....	Daily

ONGOING QUALITY ASSURANCE TESTS—Continued

Test	PEMS regulatory purpose	Acceptability	Frequency
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 $d_{avg} \leq \lvert cc \rvert$	Bias test passed (no correction factor needed)
PEMS Training	All	If $F_{critical} \geq F\ r \geq 0.8$	Optional after initial and subsequent RATAs
Sensor Evaluation Alert Test (optional)	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 Audits. In the first year of operation after the initial certification, perform a RAA consisting of at least three 30-minute portable analyzer or RM determinations each quarter a RATA is not performed. The average of the 3 portable analyzer or RM determinations must not differ from the simultaneous PEMS average value by more than 10 percent of the analyzer or RM value or the test is failed. If a PEMS passes all quarterly RAAs in the first year and also passes the subsequent yearly RATA in the second year, you may elect to perform a single mid-year RAA in the second year in place of the quarterly RAAs. This option may be repeated, but only until the PEMS fails either a mid-year RAA or a yearly RATA. When such a failure occurs, you must resume quarterly RAAs in the quarter following the failure and continue conducting quarterly RAAs until the PEMS successfully passes both a year of quarterly RAAs and a subsequent RATA.

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 performed.

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.
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.
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.
RAA = Relative accuracy audit.
RM = Average RM value (or in the case of the RAA, the average portable analyzer 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 PEMS, calculate the RA at each test level. The PEMS must pass the RA criterion at each test level.

12.2.1 Arithmetic Mean. Calculate the arithmetic mean of the differences between paired RM and PEMS observations using Equation 16–1.

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

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

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

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

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

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

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

12.3 Compliance PEMS Statistical Tests. If your PEMS will be used for continual compliance 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:

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

12.3.2 F-test. Conduct an F-test for each of the three RA data sets collected at different test 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. If during the initial certification test, your PEMS data are determined to be auto-correlated according to the procedures in 40 CFR 75.41(b)(2), or if the signal-to-noise ratio of the data is less than 4, then the correlation analysis is permanently waived.

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

12.4 Relative Accuracy Audit. Calculate the quarterly RAA using Equation 16–4.

$$RAA = \frac{\overline{PEMS} - \overline{RM}}{\overline{RM}} \times 100 \qquad \text{Eq. 16-9}$$

13.0 Method Performance

13.1 PEMS Relative Accuracy. The RA must not exceed 10 percent if the PEMS measurements are greater than 100 ppm or 0.2 lbs/mm Btu. The RA must not exceed 20 percent if the PEMS measurements are between 100 ppm (or 0.2 lb/mm Btu) and 10 ppm (or 0.05 lb/mm Btu). For measurements below 10 ppm, the absolute mean difference between the PEMS measurements and the RM measurements must not exceed 2 pppm. 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.

13.5 Relative Accuracy Audits. The average of the 3 portable analyzer or RM determinations must not differ from the simultaneous PEMS average value by more than 10 percent of the analyzer or RM value.

14.0 Pollution Prevention [Reserved]

15.070 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	$t_{0.025}$	n–1	$t_{0.025}$
2	12.706	16	2.131
3	4.303	17	2.120
4	3.182	18	2.110
5	2.776	19	2.101
6	2.571	20	2.093
7	2.447	21	2.086
8	2.365	22	2.080
9	2.306	23	2.074
10	2.262	24	2.069
11	2.228	25	2.064
12	2.201	26	2.060
13	2.179	27	2.056
14	2.160	28	2.052
15	2.145	> 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}	1	2	3	4	5	6	7	8	9	d.f. for S^2_{PEMS}		
										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	9.52	9.277	9.17	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	4.772	4.735	4.704	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	4.737	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	3.313	3.284
9	5.117	4.257	3.863	3.633	3.482	3.374	3.293	3.230	3.179	3.137	3.102	3.073
10	4.965	4.103	3.709	3.478	3.326	3.217	3.135	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

■ 5. In Procedure 1 of Appendix F, paragraph (3) of Section 5.1.2 and Section 8 is revised as follows:

Appendix F to Part 60—Quality Assurance Procedures

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 *http://www.epa.gov/ttn/emc.*

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

* * * * *

■ 6. In Procedure 2 of Appendix F, Section 10.1, paragraph (3) of Section 10.4, and paragraph (2) of Section 12.0 are revised 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.

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

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.

$$\text{ACA Accuracy} = \frac{|C_{CEM} - C_{RV}|}{C_S} \times 100\% \qquad \text{Eq. 2-1b}$$

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}.

* * * * *

Part 63—[Amended]

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

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

■ 8. In Method 303 of Appendix A, add a sentence to the end of Section 1.1 to read as follows:

Appendix A to Part 63—Test Methods

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

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.

[FR Doc. E9–6275 Filed 3–24–09; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA–R09–OAR–2008–0759; FRL–8783–7]

Delegation of National Emission Standards for Hazardous Air Pollutants for Source Categories; State of California; Amador County Air Pollution Control District, San Diego County Air Pollution Control District

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: EPA is amending certain regulations to reflect the current delegation status of national emission standards for hazardous air pollutants in California. Amador County Air Pollution Control District and San Diego County Air Pollution Control District requested delegation of these federal standards as they apply to non-major sources. Their delegation requests were approved by letter on September 4, 2008. The purpose of this action is to update the listing in the Code of Federal Regulations. EPA Region IX is also waiving the need for duplicate reporting after a California district is delegated these federal standards applicable to non-major sources.

DATES: This rule is effective on May 26, 2009 without further notice, unless EPA receives relevant adverse comments by April 24, 2009. If EPA receives such comments, then it will publish a timely withdrawal in the **Federal Register** informing the public that this rule will not take effect.

ADDRESSES: Submit comments, identified by docket number EPA–R09–OAR–2008–0759, by one of the following methods:

1. *Federal eRulemaking Portal: www.regulations.gov.* Follow the on-line instructions.
2. *E-mail: steckel.andrew@epa.gov.*
3. *Mail or deliver:* Andrew Steckel (Air-4), U.S. Environmental Protection Agency Region IX, 75 Hawthorne Street, San Francisco, CA 94105–3901.

Instructions: All comments will be included in the public docket without change and may be made available online at *www.regulations.gov,* including any personal information provided, unless the comment includes Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Information that you consider CBI or otherwise protected should be clearly identified as such and should not be submitted through *www.regulations.gov* or e-mail. *www.regulations.gov* is an "anonymous access" system, and EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send e-mail directly to EPA, your e-mail address will be automatically captured and included as part of the public comment. 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. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: The index to the docket for this action is available electronically at *www.regulations.gov* and in hard copy at EPA Region IX, 75 Hawthorne Street, San Francisco, California. While all documents in the docket are listed in the index, some information may be publicly available only at the hard copy location (e.g., copyrighted material), and some may not be publicly available in either location (e.g., CBI). To inspect the hard copy materials, please schedule an appointment during normal business hours with the contact listed in the **FOR FURTHER INFORMATION CONTACT** section.

FOR FURTHER INFORMATION CONTACT: Mae Wang, EPA Region IX, (415) 947–4124, *wang.mae@epa.gov.*

SUPPLEMENTARY INFORMATION: Throughout this document "we," "us," and "our" refer to EPA.

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I. Background

A. Delegation of NESHAP

Section 112(l) of the Clean Air Act, as amended in 1990 (CAA), authorizes EPA to delegate to State or local air pollution control agencies the authority to implement and enforce the standards set out in Title 40 of the Code of Federal Regulations (CFR), Part 63, National Emission Standards for Hazardous Air Pollutants for Source Categories (NESHAP). On November 26, 1993, EPA promulgated regulations, codified at 40 CFR part 63, subpart E (hereinafter referred to as "Subpart E"), establishing procedures for EPA's approval of State rules or programs under CAA 112(l) (*see* 58 FR 62262). The procedures of Subpart E were later amended on September 14, 2000 (*see* 65 FR 55810).

Any request for approval under CAA section 112(l) must meet the approval criteria in 112(l)(5) and Subpart E. To