

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Parts 72 and 75**

[EPA-HQ-OAR-2009-0837; FRL-9280-9]

RIN 2060-AQ06

**Protocol Gas Verification Program and Minimum Competency Requirements for Air Emission Testing**

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

**ACTION:** Final rule; Reconsideration.

**SUMMARY:** EPA is finalizing rule revisions that modify existing requirements for sources affected by the federally administered emission trading programs including the NO<sub>x</sub> Budget Trading Program, the Acid Rain Program, and the Clean Air Interstate Rule.

EPA is amending its Protocol Gas Verification Program (PGVP) and the minimum competency requirements for air emission testing (formerly air emission testing body requirements) to improve the accuracy of emissions data. EPA is also amending other sections of the Acid Rain Program continuous emission monitoring system regulations by adding and clarifying certain recordkeeping and reporting requirements, removing the provisions

pertaining to mercury monitoring and reporting, removing certain requirements associated with a class-approved alternative monitoring system, disallowing the use of a particular quality assurance option in EPA Reference Method 7E, adding two incorporation by references that were inadvertently left out of the January 24, 2008 final rule, adding two new definitions, revising certain compliance dates, and clarifying the language and applicability of certain provisions.

**DATES:** This final rule is effective on April 27, 2011. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of April 27, 2011.

**ADDRESSES:** The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2009-0837 (which includes Docket ID No. EPA-HQ-OAR-2005-0132, and Docket ID No. EPA-HQ-OAR-2008-0800). All documents in the docket are listed in the <http://www.regulations.gov> index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket

materials are available either electronically in <http://www.regulations.gov> or in hard copy at the Air and Radiation Docket, EPA/DC, EPA West Building, EPA Headquarters Library, Room 3334, 1301 Constitution Avenue, NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Air and Radiation Docket is (202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** John Schakenbach, U.S. Environmental Protection Agency, Clean Air Markets Division, MC 6204J, Ariel Rios Building, 1200 Pennsylvania Ave., NW., Washington, DC 20460, telephone (202) 343-9158, e-mail at [schakenbach.john@epa.gov](mailto:schakenbach.john@epa.gov). Electronic copies of this document can be accessed through the EPA Web site at: <http://epa.gov/airmarkets>.

**SUPPLEMENTARY INFORMATION:** *Regulated Entities.* Entities regulated by this action primarily are fossil fuel-fired boilers, turbines, and combined cycle units that serve generators that produce electricity for sale or cogenerate electricity for sale and steam. Regulated categories and entities include:

Category	NAICS code	Examples of potentially regulated industries
Industry .....	221112 and others .....	Electric service providers.

This table is not intended to be exhaustive, but rather to provide a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities which EPA is now aware could potentially be regulated by this action. Other types of entities not listed in this table could also be regulated. To determine whether your facility, company, business, organization, etc., is regulated by this action, you should carefully examine the applicability provisions in §§ 72.6, 72.7, and 72.8 of title 40 of the Code of Federal Regulations. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

*World Wide Web (WWW).* In addition to being available in the docket, an electronic copy of the final rule is also available on the WWW through the Technology Transfer Network Web site (TTN Web). Following signature, a copy of the rule will be posted 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.

*Judicial Review.* Under CAA section 307(b), judicial review of this final action is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit on or before May 27, 2011.

Under CAA section 307(d)(7)(B), only those objections to the final rule that were raised with specificity during the period for public comment may be raised during judicial review. Moreover, under CAA section 307(b)(2), the requirements established by today's final rule may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements. Section 307(d)(7)(B) also provides a mechanism for the EPA to convene a proceeding for reconsideration if the petitioner demonstrates that it was impracticable to raise an objection during the public

comment period or if the grounds for such objection arose after the comment period (but within the time for judicial review) and if the objection is of central relevance to the rule. Any person seeking to make such a demonstration to EPA should submit a Petition for Reconsideration, clearly labeled as such, to the Office of the Administrator, U.S. EPA, Room 3000, Ariel Rios Building, 1200 Pennsylvania Ave., Washington, DC 20460, with a copy to the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel, Mail Code 2344A, U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

*Outline.* The following outline is provided to aid in locating information in this preamble.

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### I. Detailed Discussion of Rule Revisions and Responses to Major Comments

On January 24, 2008, revisions to 40 CFR part 75, the Acid Rain Program continuous emission monitoring regulations, were published in the **Federal Register** (see 73 FR 4340, January 24, 2008). To better ensure the accuracy of EPA Protocol gases used for Part 75 purposes, these amendments required that these gases be obtained from specialty gas producers that participate in a Protocol Gas Verification Program (PGVP). The final rule further provided that only PGVP participants were allowed to market calibration gas as "EPA Protocol gas". The January 24, 2008 rulemaking also included a provision requiring minimum competency requirements for

air emission testing bodies (AETBs). The PGVP and AETB provisions became effective on January 1, 2009.

The Administrator received a Petition for Review, and a Petition for Reconsideration, claiming that EPA had not properly promulgated the PGVP. The Agency also received a Petition for Review challenging the AETB requirements. Subsequently, EPA published a final rule in the **Federal Register** staying the AETB requirements (73 FR 65554, November 4, 2008). EPA also posted a notice on an Agency Web site stating that the PGVP is not in effect, and a revised PGVP would not be effective until EPA goes through notice and comment rulemaking on any revised procedure. EPA is today announcing its reconsideration of the PGVP provisions of the January 24, 2008 final rule and is finalizing amendments to both the PGVP and AETB requirements. Today's final rule replaces the existing AETB requirements, effectively removing the stay.

EPA is also finalizing amendments to other sections of Part 75 by adding several data elements associated with EPA's Emissions Collection and Monitoring Plan System (ECMPS) software, clarifying the requirements for including cover letters with monitoring plan submittals, certification applications, and recertification applications, removing the 90 unit operating days provision pertaining to the monitoring system certification deadline for new Acid Rain Program (ARP) units and newly-affected units that lose their ARP-exempt status, removing the provisions pertaining to mercury monitoring and reporting, removing certain requirements associated with a class-approved alternative monitoring system, disallowing the use of a particular quality assurance option in EPA Reference Method 7E, adding two incorporation by references that were inadvertently left out of the January 24, 2008 final rule and updating others, adding two new definitions, updating recordkeeping/reporting formats, and clarifying the language and applicability of certain provisions.

Today's preamble provides responses to the major comments received on the proposed rule and discusses any resulting rule changes. The response to comments document (see Docket EPA-HQ-OAR-2009-0837) provides Agency responses to all of the relevant comments received on the proposed rule.

### A. Amendments to the Protocol Gas Verification Program

EPA encourages any EPA Protocol gas production site that is interested in participating in the PGVP to notify EPA as soon as possible after this final rule is published in the **Federal Register** by submitting the contact information described in 75.21(g)(1) by following the instructions on the CAMD Web site: <http://www.epa.gov/airmarkets/emissions/pgvp.html>.

#### 1. Need for the PGVP

##### Background

EPA proposed to add § 75.21(g) to establish a refined EPA Protocol gas verification program to better ensure the accuracy of EPA Protocol gases.

Every recent audit of EPA Protocol gases has found cylinders that fail the part 75 required  $\pm 2\%$  performance specification. A 2003 EPA audit (see Document ID#s EPA-HQ-OAR-2009-0837-0011, -0074, -0075, and -0076 in the docket) of EPA Protocol gases found an unacceptably high failure rate (11% of all components analyzed, with 57% of the production sites failing at least one gaseous component) with respect to the  $\pm 2\%$  standard in Part 75. A 2009 EPA Inspector General (IG) audit (see Document ID# EPA-HQ-OAR-2009-0837-0064 in the docket) also found an 11% failure rate over all components analyzed, with 39% of the production sites failing at least one gaseous component. The IG recommended that EPA implement an ongoing PGVP. A 2010 audit of EPA Protocol gases found a 10% failure rate over all components analyzed, with 40% of the production sites failing at least one gaseous component.

These failures were found using a small blind sample of cylinders from each specialty gas company in the U.S. There is no reason to think these samples were not random. Therefore, it is likely that for the companies that had failed audited cylinders, other cylinders from those companies would fail.

#### Summary of Comments and Responses

*Comment:* Eleven commenters, including one representing seven specialty gas companies that provide the vast majority of EPA Protocol gases in the U.S., supported the PGVP, and three commenters opposed it. The accuracy of EPA Protocol gases is important because these gases are used to help ensure that the national emission reduction goals of the Clean Air Act are met.

*Response:* Many of the proposed rule provisions of § 75.21(g) have been finalized as proposed. Significant

changes to the PGVP provisions in § 75.21(g) are discussed below.

## 2. Cost

### Background

EPA proposed several rule changes that added a small number of PGVP-related recordkeeping and reporting requirements. An information collection request (ICR) supporting statement was developed, as required by the Paperwork Reduction Act.

EPA Protocol gas production sites selling EPA Protocol gases to part 75 affected sources will be required to have a small number of their cylinders analyzed each year, and provide annual notification to EPA with basic information on their facility and other information relevant to the PGVP. EPA anticipates that these costs will be passed through to the customers, which are generally sources subject to part 75, including large electric utility and industrial companies.

### Summary of Comments and Responses

*Comment:* Several commenters suggested that the ICR for the proposed rule did not include sufficient detail and omitted certain costs associated with part 75 recordkeeping and reporting requirements. Another commenter stated that the proposed PGVP program was “exorbitantly expensive because it uses the analytical services of NIST.”

*Response:* No rule changes were required to address the commenter’s concerns. However, the Agency has revised the ICR for the final rule to include additional details and costs associated with part 75 recordkeeping and reporting requirements. For a more detailed discussion of this issue, refer to the ICR for the final rule.

EPA performed an audit of EPA Protocol gases in 2010 and the National Institute of Standards and Technology (NIST) analyzed the cylinders EPA collected in the audit. NIST provided an initial estimate of \$2,000 per cylinder to analyze tri-blend gas mixtures in the 2010 audit. The following costs for the PGVP are based on assumptions similar to those made for the 2010 audit. These assumptions are: (a) That only NO, SO<sub>2</sub> and CO<sub>2</sub> will be analyzed; (b) that only these compounds are within the gas mixture along with balance gas nitrogen (additional compounds within the gas mixture, even if they are not analyzed, complicate the analysis of the primary components); and (c) that the concentrations will all fall within a relatively narrow band that can be defined in the low, mid and high ranges. EPA notes that these assumptions may

not hold from year-to-year, but believes that the following cost estimates are generally conservative. The 2010 audit consumed 715 hours of time to analyze and report on 57 cylinders. NIST believes they have designed a better sampling system and can reduce that time to 550 hours for the same 57 cylinders. This amount of resources equals \$1,500 per cylinder analysis and report production, and is NIST’s estimate for those activities for a similar PGVP audit in 2011. Assuming the above assumptions hold, NIST has agreed to commit to this cost estimate for three years, until 2013 (*see* Document ID# EPA-HQ-OAR-2009-0837-0058 in the docket).

The following costs are based on EPA’s 2010 Protocol gas audit. If NIST analyzes 4 cylinders from each production site, the total annual cost due to the PGVP would be approximately \$7,200 per production site (*see* Document ID# EPA-HQ-OAR-2009-0837-0007 in the docket). This cost includes cylinder analysis and report production by NIST (\$1,667/cylinder), average one-way shipping costs back to the production site (\$91/cylinder), and average rental cost (\$7/cylinder/month). The \$1,667/cylinder cost estimate covers some deviations, *e.g.*, there may be carbon monoxide in the gas mixtures, from the assumptions made for the 2010 audit, and is therefore higher than the \$1,500/cylinder NIST commitment. The total cost of NIST analysis, report production, six months cylinder rental, and shipping back to the production site is approximately \$1,800 per cylinder (*see* Document ID# EPA-HQ-OAR-2009-0837-0007 in the docket).

EPA estimates that the average increased cost due to the PGVP will be approximately \$2 per cylinder (*see* Table 3 in the ICR for the final rule, in Docket EPA-HQ-OAR-2009-0837). This estimate was derived from correspondence with both large and small specialty gas companies, which based their estimates on the number of cylinders they sold per year and the above cost estimates. For a small company that sells fewer cylinders per year, the cost per cylinder will be higher than for a larger company. However, even for a small company, the increased \$2.00 per cylinder cost due to the PGVP is insignificant in comparison to the wide range of cost for the same type of EPA Protocol gas cylinder (EPA found the 2010 cost of the same tri-blend EPA Protocol cylinder ranged from approximately \$225–\$665 in the U.S. (*see* Document ID# EPA-HQ-OAR-2009-0837-0009 in the docket)).

To maintain these costs, scheduling of the PGVP audit activity during the year must be strictly followed by all the companies involved in the audit. Economy of batching similar gas cylinders and receipt of all similar cylinders within a specific time frame will enable NIST to control costs. Those cylinders with the appropriate funding documents that arrive within that time frame will be part of the audit. Those that do not will be excluded. That is the only way NIST will be able to control costs.

The costs are minimized by the 4 cylinder limit per production site, and the cost containment measures implemented by NIST and described in the preamble to the proposed rule.

## 3. Effective Dates

### Background

EPA proposed to add § 75.59(a)(9)(x)(A) to require that PGVP recordkeeping start on and after the date that is six months from the effective date of the final rule. The PGVP reporting would start prior to or concurrent with the submittal of the relevant quarterly electronic data report on and after January 1, 2011.

### Summary of Comments, Responses and Rule Changes

*Comment:* Several commenters requested clarification of the effective dates for the PGVP provisions. One commenter requested that the Agency provide enough time for production sites to submit the information required to participate in the PGVP and for EPA to notify Part 75 sources of the participating production sites.

*Response:* EPA agrees that the wording in the proposed rule should be clearer. The effective date of the final rule will be 30 days from the date it is published in the **Federal Register**.

To provide more time for production sites to submit necessary information to participate in the PGVP and for the Agency to inform Part 75 sources of the PGVP participants, EPA has amended § 75.21(g)(6) to take effect 60 days from publication of the final rule in the **Federal Register**. On and after that date, sources subject to Part 75 that use EPA Protocol gas will need to purchase such gas from PGVP participants (or from a reseller that sells unaltered gas from a PGVP participant). However, § 75.21(g)(7) allows EPA Protocol gas cylinders certified by or ordered from any production site prior to 60 days from publication of the final rule in the **Federal Register** to be used up.

Section 75.59(a)(9)(x)(A) and § 75.64(a)(5) of the final rule require

PGVP recordkeeping and reporting for sources subject to part 75 to commence 180 calendar days from the date of publication of the final rule in the **Federal Register**.

#### 4. Recordkeeping/Reporting

##### Background

EPA proposed to add § 75.59(a)(9)(x)(A) and to revise § 75.64(a)(5) to require Part 75 affected sources using EPA Protocol gas to record and report, respectively: (1) Gas level code; (2) a code for the type of EPA Protocol gas used; (3) start date and hour for EPA Protocol gas type code; (4) end date and hour (if applicable) for EPA Protocol gas type code; (5) the PGVP vendor ID issued by EPA for the EPA Protocol gas production site that supplied the gas cylinder; (6) start date and hour for PGVP vendor ID; and (7) end date and hour (if applicable) for PGVP vendor ID. EPA also proposed to revise § 75.59(a)(9)(x)(B) and § 75.64(a)(5) to require the recording and reporting, respectively, of the information in (1), (2) and (5) above for each usage of Reference Method 3A or Method 6C or 7E performed using EPA Protocol gas for the certification, recertification, routine quality assurance or diagnostic testing (reportable diagnostics only) of a Part 75 monitoring system.

##### Summary of Comments, Responses and Rule Changes

*Comment:* One commenter requested that EPA explain why such detailed reporting of start and end dates and hours corresponding to use of a particular type of Protocol gas is required and why the reporting of Protocol gas type codes is important. The commenter generally believes that tracking of information on individual gas cylinders is not necessary and EPA has provided no justification for it. The commenter is also concerned that the level of specificity may result in implementation issues or errors that complicate reporting. For example, EPA proposes to require sources to record not only the start and end date, but also the hour corresponding to use of a particular type of protocol gas and a particular PGVP vendor. In the past, recorded start and end dates and hours have been problematic because of differences between the way sources interpret the rule and the way EPA's software has been programmed.

*Response:* It was originally envisioned that the PGVP related information would be reported in the monitoring plan. However, § 75.64(a)(5) of the final rule requires reporting of this

information in the quarterly electronic reports. Therefore, start and end dates and times are not needed. Further, the reporting of low, mid or high-level gas concentrations is already required by § 75.59(a)(3). In view of these considerations, the only additional ECMPs reporting required by the final rule consists of: (a) A code for the type of EPA Protocol gas used; (b) the PGVP vendor ID; (c) the cylinder expiration date; and (d) the cylinder number. The reporting of Protocol gas type code is important for informing future PGVP audits. The reporting of the PGVP vendor ID is essential to allow EPA to determine that each EPA Protocol gas cylinder used by a Part 75 source is from a participating EPA Protocol gas production site. See the response to the next comment for the reasons why we are requiring cylinder expiration dates and cylinder numbers to be reported.

*Comment:* Two commenters desired the PGVP program to be more rigorous.

*Response:* With respect to recordkeeping and reporting, EPA has added electronic recordkeeping and reporting of cylinder expiration dates and cylinder numbers for all cylinders used for any certification, recertification, diagnostic, or quality assurance test required under Part 75. The Agency believes that this will strengthen the PGVP by reducing or eliminating the use of expired cylinders, and by improving the tracking of cylinder information. It also will assist inspectors in their preparation for field audits of the CEMS. Sections 75.59(a)(7)(iv)(X) and 75.59(a)(9)(v) already require these two items to be recorded in limited situations or in hardcopy only, and section 75.60(b)(6) already requires these two items to be provided to the State, local agency or EPA Regional Office in hardcopy RATA and emission test reports, when such reports are requested.

#### 5. ISO 17025

##### Background

The Agency proposed to add § 75.21(g) to establish a refined PGVP rather than relying on ISO 17025.

##### Summary of Comments, Responses and Rule Changes

*Comment:* One commenter suggested that EPA rely on ISO 17025 instead of establishing a refined PGVP.

*Response:* The Agency disagrees with the commenter and has decided to finalize a refined PGVP in § 75.21(g) instead of requiring compliance with ISO 17025.

EPA has no objection to specialty gas companies certifying or accrediting to

ISO 17025 "General Requirements for the Competence of Testing and Calibration Laboratories", but encourages companies to participate in the PGVP. Certifying or accrediting to ISO 17025 can be beneficial. However, the purpose of the ISO standard is different from the purpose of the PGVP. The purpose of ISO 17025 is to better assure that a laboratory has proper quality assurance and quality control (QA/QC) practices in place. The idea is that if proper QA/QC practices are in place, better products will result. However, this may not always be the case. As a matter of fact, one manufacturer (Scott Specialty Gases, now a part of Air Liquide) pointed out that ISO 17025 certification is not only extremely expensive, but it does not guarantee that a better protocol product will be manufactured. For example, one gas manufacturer which held certification to the ISO standard registered at least 1 failure in a blind audit (see Document ID#s EPA-HQ-OAR-2009-0837-0069 and -0070 in the docket).

The only audits that ISO 17025 requires are internal audits of procedures, not products. The ISO standard states that these internal audits are to be conducted "periodically", with no time frame specified. The results of these audits are to be provided to clients of the laboratory, but it is not clear that the results would be publicly available. Thus potential future clients may not be aware of how the laboratory was performing. The Agency believes that the PGVP audit results should be publicly available to allow potential EPA Protocol gas customers to make a more informed purchasing decision.

The accuracy of EPA Protocol gases is important because these gases are used to help ensure that the national emission reduction goals of the Clean Air Act are met. The Agency's goal is to implement a cylinder audit program to better ensure the quality of these gases. EPA believes the best way to do that is to implement a PGVP and have a blind sample of cylinders analyzed by an independent, nationally recognized laboratory such as the National Institute of Standards and Technology. A blind sample is necessary to ensure that the cylinders analyzed are more representative of routine production at each production site rather than representative of the best possible performance that would likely occur if the production site knew that its cylinder was being audited.

Small and large specialty gas companies commented that requiring conformance to ISO 17025 would be significantly more expensive than

complying with the PGVP (see Document ID#s EPA-HQ-OAR-2009-0837-0057, -0065, -0066, -0067, -0068, -0069, -0070, and -0073 in the docket). One large specialty gas company stated that the PGVP would be more cost effective and would provide an actual representation of the quality of EPA Protocol gas cylinders.

## 6. Credit/Invoice Cancellation

### Background

We proposed to add § 75.21(g)(5)(ii) to require that EPA receive written proof of a credit receipt or of cancellation of the invoice for the cylinders being audited from the EPA Protocol gas production site within two weeks of notifying the EPA Protocol gas production site that its cylinders are being audited by EPA.

### Summary of Comments, Responses and Rule Changes

*Comment:* Several commenters requested that EPA allow 30–45 days for submittal of the invoice nullification or credit receipt, claiming that two weeks is insufficient time for large organizations handling hundreds of transactions and multiple accounts. One commenter suggested that if EPA does not allow 30–45 days it should include the cost of purchasing the cylinders in the bill that is presented to the Protocol gas manufacturers instead of a credit being issued to them. Another commenter added that because a producer's participation in the PGVP is contingent on meeting this requirement in a timely manner, the time period should not be so short as to jeopardize a producer's status as an EPA protocol gas producer. In addition, the commenter opined that the rule should expressly permit the electronic transmission of proof of cancellation of the invoice or crediting the purchaser's account.

*Response:* EPA agrees that two weeks for submitting a credit receipt or a cancellation of the invoice is insufficient time, and that electronic as well as written credit receipt or cancellation of the invoice is acceptable. Section 75.21(g)(5)(ii) of the final rule allows up to 45 calendar days for production sites to provide EPA with electronic or written credit receipt or invoice cancellation.

## 7. Gas Type Codes

### Background

EPA proposed to include EPA Protocol gas type codes in the ECMPS electronic reporting instructions to inform cylinder selection for the annual PGVP audits.

### Summary of Comments, Responses and Rule Changes

*Comment:* Several commenters suggested that EPA use the code "C" for a single-blend CO, "C2" for a single-blend CO<sub>2</sub>, and "NSCC" for an EPA Protocol gas quad-blend standard consisting of four certified components, NO<sub>x</sub>, SO<sub>2</sub>, CO<sub>2</sub>, and CO, and a balance gas.

*Response:* Under Part 75, carbon monoxide is not required to be recorded or reported. Therefore, a code for that single blend gas cylinder will not be included in the reporting instructions. EPA must use "CO2" as the code for CO<sub>2</sub> because it is used throughout EPA's database to describe that parameter and EPA wants to maintain consistent code conventions in the ECMPS reporting software. Because NO<sub>x</sub> can be certified as NO, NO<sub>2</sub> or NO and NO<sub>2</sub>, EPA has added three codes to the list to represent the quad blend NO<sub>x</sub>, CO<sub>2</sub>, SO<sub>2</sub> and CO and a balance gas: SNCC representing SO<sub>2</sub>, NO, CO and CO<sub>2</sub> and a balance gas, SN2CC representing SO<sub>2</sub>, NO<sub>2</sub>, CO and CO<sub>2</sub> and a balance gas, and SNXCC representing SO<sub>2</sub>, NO, NO<sub>2</sub>, CO and CO<sub>2</sub> and a balance gas.

*Comment:* Several commenters suggested that EPA should make clear in the electronic reporting instructions that the list of Protocol gas codes is not exclusive, meaning that these are not the only formulations of EPA Protocols, and that other types of EPA Protocols could be made to meet customer needs.

*Response:* EPA agrees and will provide this clarification in the ECMPS electronic reporting instructions.

*Comment:* Several commenters requested that EPA provide an option for "other," which would indicate a formulation other than those identified on the list.

*Response:* The Protocol gas type codes have been revised to include an "Other EPA-Approved EPA Protocol Gas Blend" category. However, sources will need to receive EPA approval to use it. EPA has found that if an "Other" category is allowed, sources will sometimes simply use that category instead of selecting the correct one. EPA will add new codes to ECMPS as needed. The ECMPS system allows these types of additions to be made quickly and easily.

*Comment:* One commenter questioned the need for EPA Protocol gas type codes.

*Response:* The reporting of Protocol gas type code is important for informing the cylinder selection for the annual PGVP audits.

*Comment:* One commenter requested that EPA clarify that it is still allowing the use of a blend of gases as both zero gas and span gas.

*Response:* Section 6.3.1 of Appendix A to Part 75 has been revised to clarify that a Protocol gas blend may be used as both a zero gas and span gas where appropriate.

*Comment:* One commenter objected to certain multiple combination codes for Protocol gas mixtures, especially code SN1, which represents a bi-blend of SO<sub>2</sub> and NO<sub>x</sub> because this gas mixture could potentially include sulfur dioxide and nitrogen dioxide in the same cylinder. According to the commenter, the combination of nitrogen dioxide and sulfur dioxide mixtures cannot be manufactured because the nitrogen dioxide and sulfur dioxide will react with each other causing stability issues with the mixture. The commenter questioned whether the SN1 mixture means sulfur dioxide, and nitric oxide with the oxides of nitrogen reported.

*Response:* Based on an August 2, 2010 telephone call from EPA to a specialty gas company, the Agency believes that an SO<sub>2</sub> and NO<sub>2</sub> combination may be possible. However, if an SO<sub>2</sub> and NO<sub>2</sub> combination cannot be properly manufactured, it probably will not be, and any such cylinders that are improperly manufactured will likely fail if audited in the PGVP. To clarify the meaning of the "SN1" code that was in the proposed rule preamble, the ECMPS PGVP reporting instructions at [http://www.epa.gov/airmarkets/business/ecmps/docs/pgvp\\_aetb.pdf](http://www.epa.gov/airmarkets/business/ecmps/docs/pgvp_aetb.pdf) now include cylinder gas type codes: "SN" for SO<sub>2</sub> and NO, "SN2" for SO<sub>2</sub> and NO<sub>2</sub>, and "SNX" for SO<sub>2</sub>, NO, and NO<sub>2</sub> instead of "SN1".

## 8. Use of 95% Confidence Interval in Tag Values

### Background

EPA proposed to revise section 5.1.4 (EPA Protocol Gases) of Appendix A to Part 75 to remove the reference to the 95-percent confidence interval, and to revise sections 5.1.4 and 5.1.5 (Research Gas Mixtures) to remove the reference to calculating uncertainty using the statistical procedures (or equivalent statistical techniques) that are listed in Section 2.1.8 of the "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards" (EPA Traceability Protocol), September 1997, as amended August 25, 1999, EPA-600/R-97/121.

### Summary of Comments, Responses and Rule Changes

*Comment:* Several commenters suggested that the current provisions regarding uncertainty in sections 5.1.4 and 5.1.5 of Appendix A to part 75 are scientifically defensible and should remain. To tighten the confidence

interval would require the enlargement of the uncertainty which the entire gas industry (including NIST and specialty gas manufacturers) have long encountered. For example, instead of  $\pm 2\%$  at the 95% confidence interval it might change to  $\pm 3\%$  at the 99% confidence interval.

*Response:* The Agency is persuaded by these comments and has decided to retain the references in sections 5.1.4 and 5.1.5 to a 95% confidence interval and calculation of uncertainty using the statistical procedures (or equivalent statistical techniques) that are listed in Section 2.1.8 of the EPA Traceability Protocol.

## 9. Uncertainty of Results

### Background

The Agency proposed to add § 75.21(g)(9)(ii) to require that the concentration of each audited cylinder be analyzed by NIST with an uncertainty of plus or minus 1.0 percent (inclusive) or better, unless otherwise approved by EPA. EPA also proposed to add a Figure 3 in Appendix B to part 75 with explanatory text at the bottom of the figure stating that “A gaseous component is said to fail only if all available analytical techniques used in the audit indicate greater than a 2.0% difference from the cylinder tag value.”

### Summary of Comments, Responses and Rule Changes

*Comment:* One commenter suggested that EPA revise the text at the bottom of Figure 3 of Appendix B of Part 75 so that any overlap between the original tag error band and the audit analysis error band be considered when determining the pass/fail basis of a cylinder. For example, if the original tag had an error band of 2%, and the audit analysis had an error band of 1%, then more than a 3% difference would fail the PGVP. If the error band concept is not used, the assumption is there is no propagation of the two errors and the NIST audit analysis is error free (has an uncertainty of zero). The uncertainty of the PGVP begins at the NIST metrological institute level where even their internal standards have uncertainties associated with the tag value. The Protocol gas manufacturer's uncertainties and the NIST uncertainties must be propagated in order to achieve a combined error band. We cannot assume one or the other analytical process is error free.

*Response:* EPA has amended the statement at the bottom of Figure 3 in part to read: A gaseous component is said to fail when the absolute value of the difference between the audit and

vendor concentration values is greater than 2.2%. The 2.2% value is determined by using the “paired t test” at 95% confidence, with an uncertainty of plus or minus 2.0% (fixed by Part 75, Appendix A, section 5.1.4(b)) and plus or minus 1.0% (expanded uncertainty with coverage factor  $k=2$ ) for the gas vendor and audit, respectively. If the plus or minus 1.0% audit expanded uncertainty value changes, the 2.2% value may change.

*Comment:* “EPA should adopt a 2% uncertainty for the NIST analysis of the cylinders.”

*Response:* The Agency disagrees. An expanded uncertainty (coverage factor  $k=2$ ) of plus or minus 1.0 percent (calculated combined standard uncertainty of plus or minus 0.5%), inclusive, or better in the NIST analysis was assumed when the PGVP costs were estimated in the proposed rule. A 2010 EPA audit of EPA Protocol gases required a 0.5% uncertainty in the NIST analysis for gas concentrations commonly used by Part 75 sources. If EPA were to allow the uncertainty of the NIST analysis to be up to  $\pm 2.0\%$ , the audit results would need to allow for approximately a 4.0% difference between the NIST result and the vendor result before a cylinder could be said to fail. A  $\pm 2.0\%$  uncertainty for the NIST audit results defeats the purpose of the PGVP. The Part 75 accuracy standard for EPA Protocol gases is  $\pm 2.0\%$  (see Part 75, Appendix A, section 5.1.4(b)). To verify that a gas meets this standard, ideally NIST would need to have a 0.0% uncertainty. The further away the NIST audit results are from a 0.0% uncertainty, the less certain it is that this standard is achieved. Section 75.21(g)(9)(ii) in the final rule allows EPA to approve a greater NIST analytical uncertainty if required, e.g., for certain low concentration gases. EPA has added two new definitions in section 72.2 to help clarify the terms “expanded uncertainty” and “coverage factor” (see <http://physics.nist.gov/cuu/Uncertainty/coverage.html>).

## 10. Implementation Options

### Background

EPA proposed four implementation options for the PGVP in the preamble to the June 11, 2010 proposed rule regarding the number of production sites and cylinders that are audited each year and the length of time allotted to NIST to analyze the cylinders and to report the results.

### Summary of Comments, Responses and Rule Changes

*Comment:* One commenter stated that Option 1 could result in a specialty gas company, which is removed after December 31, being unable to be relisted for a length of time that is more than intended.

*Response:* EPA agrees that if the NIST audit report takes longer than one year to complete so that EPA receives the audit report in the first half of a calendar year and a production site was not in the audit report, that production site might not be re-listed for up to two years. In this situation, section 75.21(g)(5)(iii) of the proposed rule did not allow re-listing until December 31 of the next year. This period of time before relisting is longer than was intended. In addition, EPA understands that it would be unfair not to re-list a production site due to circumstances beyond the production site's control. Therefore, the Agency has revised sections 75.21(g)(5)(ii) and (iii) to address these concerns. For the two relevant situations in sections 75.21(g)(5)(ii) and (iii), a production site is eligible for relisting 180 calendar days after the date of notice of its delisting, provided that the information required by § 75.21(g)(1) is submitted to EPA.

*Comment:* One commenter opposed Option 2 because it reduced the number of cylinders per site selected for verification. This commenter also stated that while the proposed four cylinders do not constitute a representative sample, two cylinders would be even less so. Two commenters opposed Option 3 stating that it would benefit large specialty gas companies and would assume that all production sites for a specialty gas company would have equivalent capabilities. This commenter also stated as was shown in the IG's report it is possible, indeed, likely, that a manufacturer with multiple sites will have some production sites that pass and some that fail.

*Response:* While the Agency understands the shortcomings of Option 1, 2 and 3, EPA believes that these options are necessary to preserve the ability of producers to sell EPA Protocol gases in possible (but unlikely) situations where cylinder procurement, shipping, or analyses take longer than expected to complete, and for EPA to implement the PGVP under a variety of possible conditions. However, note that all three of these options are incorporated in Option 4. Two commenters supported Option 4 and two commenters supported Option 4 but without Option 1. For the reasons previously stated, EPA will retain the

maximum flexibility of Option 4 when implementing the final rule. Consistent with the preamble discussion in the proposed rule (see 75 FR 33395, June 11, 2010), the Agency has also revised section 75.21(g)(10) to allow a participating EPA Protocol gas production site to continue to sell EPA Protocol gas cylinders in the event that none of its cylinders are audited.

*Comment:* Two commenters preferred that the PGVP be more rigorous.

*Response:* With respect to implementation options, EPA has added the following text in section 75.21(g)(9)(iv) to expedite the posting of audit results: "To be considered in the final posted audit report, EPA must receive comments, and any cylinder re-analyses from participating EPA Protocol gas production sites within 45 days of the participating EPA Protocol gas production site's receipt of the draft redacted audit report sent by EPA."

## 11. Use of Existing Cylinders

### Background

The Agency proposed to add § 75.21(g)(6) and to revise section 6.5.10 in Appendix A to Part 75 to allow for the situation when an EPA Protocol gas production site is removed from the list of PGVP participants after their gases are procured, but before the gases have been consumed. In that event, the gas cylinders may continue to be used for the purposes of this part until the earlier of the cylinder's expiration date or the date on which the cylinder gas pressure reaches 150 psig. EPA also proposed to add Section 75.21(g)(7) and to revise section 6.5.10 in Appendix A to Part 75 to allow EPA Protocol gas cylinders purchased prior to the effective date of the final rule from a production site that is not participating in the PGVP to be used for the purposes of this part until the earlier of the cylinder's expiration date or the date on which the cylinder gas pressure reaches 150 psig.

### Summary of Comments, Responses and Rule Changes

*Comment:* Several commenters supported these provisions, but requested that the Agency clarify that all cylinders ordered before the effective date of the final rule be allowed for part 75 purposes through their stated expiration date or a final pressure of 150 psi. Clear, definitive wording on this subject will prevent the waste—both economic and environmental—of potentially thousands of cylinders that may be in use or may have valid service lives as of the effective date of the final rule.

*Response:* EPA agrees and has revised § 75.21(g)(7) and section 6.5.10 in

Appendix A to part 75 to state that an EPA Protocol gas cylinder certified by or ordered from any production site no later than 60 days after the date of publication of the final rule in the **Federal Register** may be used for the purposes of this part until the earlier of the cylinder's expiration date or the date on which the cylinder gas pressure reaches 150 psig. The Agency chose to use "certified by" instead of "manufactured by" because a cylinder could be manufactured and certified for, e.g., two years, and then re-certified for up to another two years if it was not consumed. EPA does not want cylinders to be re-certified by an EPA Protocol gas production site that was not participating in the PGVP and continue to be used for potentially four years or more after the PGVP takes effect.

Section 75.21(g)(7) and section 6.5.10 in Appendix A to part 75 have also been slightly revised to allow that in the event that an EPA Protocol gas production site is removed from the list of PGVP participants on the same date as or after the date on which a particular cylinder has been certified or ordered, that gas cylinder may continue to be used for the purposes of this part until the earlier of the cylinder's expiration date or the date on which the cylinder gas pressure reaches 150 psig.

As an example, a gas cylinder can be certified for two years and then be re-certified for another two years, if it has not been consumed and its pressure is still above 500 psig. EPA does not want cylinders obtained from production sites that are not participating in the PGVP to potentially be used for four years (or more) after the PGVP takes effect. To prevent this from occurring, statements have been added to § 75.21(g)(7) and section 6.5.10 of Appendix A, prohibiting a production site that is not participating in the PGVP from recertifying such cylinders to extend their useful life and providing those cylinders to a source subject to part 75.

## 12. If NIST Withdraws From Participation

### Request for Comment

In the unlikely event that the National Institute of Standards and Technology (NIST) withdraws from participation in the PGVP, EPA requests comments on how an analytical lab should be selected to analyze cylinders collected under the PGVP. Comments should be sent to Docket ID No. EPA-HQ-OAR-2009-0837. The Agency suggests that such an analytical lab should meet the following minimum criteria:

(A) Have no conflict of interest with any participating EPA Protocol gas production site;

(B) Be capable of analyzing EPA Protocol gas cylinders with an expanded uncertainty (coverage factor  $k=2$ ) of plus or minus 1.0 percent (calculated combined standard uncertainty of plus or minus 0.5%) or better;

(C) Use NIST-certified analytical reference standards of appropriate mixtures;

(D) Have no analytical interferences or correct for them;

(E) Identify equipment and calibration procedures that will be used to conduct the testing;

(F) Provide credentials of key personnel conducting the testing and analysis;

(G) Provide assurances that the analytical lab will adhere to cost-containment provisions in any contract it signs, and a description of the cost containment provisions it would agree to; and

(H) Provide a date on which the analytical lab will be available to begin PGVP cylinder analyses.

EPA is interested in determining: (a) Whether the above acceptance criteria are sufficient; (b) how many labs could meet the above criteria or other suggested criteria; (c) how compliance with the acceptance criteria can be verified; and (d) contact information for the labs that could meet appropriate criteria.

Would use of multiple labs be appropriate under the PGVP? Please consider that use of multiple labs would mean: (a) Different analysts, reference material, equipment, and analytical techniques would be used by the different labs; (b) possible logistical problems with EPA contractors mistakenly shipping cylinders to the wrong lab, causing delays and possibly lost cylinders; (c) possible problem with intercomparison of results because there would not be a common reference standard, analyst, equipment, or analytical technique; and (d) possible increase in the chance of collusion between a lab and a production site that pays the lab.

### B. Amendments to the Minimum Competency Requirements for Air Emission Testing

#### 1. Need for the AETB Requirements

##### Background

EPA proposed to add § 75.21(f) and to revise section 6.1.2 of Appendix A to part 75 to replace the existing air emission testing body (AETB) requirements.

## Summary of Comments, Responses and Rule Changes

*Comment:* Several commenters supported the AETB minimum competency requirements. However, several commenters questioned the need for these requirements. These commenters suggested that the ASTM D 7036–04 provisions are subjective, arbitrary or unclear and are not designed such that each provision could be a federally enforceable regulatory requirement; and that there is no evidence that compliance with the ASTM standard will prevent mistakes. These commenters suggested a more appropriate approach is to encourage voluntary compliance.

*Response:* Small and large stack testing companies, sources subject to part 75, and State and EPA regulators in the ASTM D 7036–04 work group believe that implementation of the ASTM Practice will result in improved data quality. EPA believes the evidence is strong that unqualified, under-trained and inexperienced testers are routinely deployed on testing projects. EPA has had experiences with tests that have been invalidated or called into question due to poor performance by testing contractors (see Document ID#s EPA–HQ–OAR–2009–0837–0015, –0016, –0062, and –0063, and Document ID# EPA–HQ–OAR–2005–0132–0035 in the dockets). For example, an EPA Office of Inspector General Audit Report “Report of EPA’s Oversight of State Stack Testing Programs”, Report Number 2000–P–00019, September 11, 2000, states that the New Jersey Department of Environmental Protection (NJDEP) made significant corrections to 57 percent of stack tests, that 86 percent of the test protocols were deficient, 28 percent of the test programs had to be repeated for at least one parameter, and 26 percent of the test reports required significant correction, clarification, or were rejected by the NJDEP. The NJDEP states they have seen errors in approximately 50 percent of recent stack tests.

While EPA believes that meeting the requirements of ASTM D7036 and having a Qualified Individual on site during testing does not guarantee proper performance of any individual test, these actions will likely result in proper test execution and high quality data generation. EPA also believes that third party (e.g., State agency) oversight helps ensure that testing is properly conducted and strongly encourages such oversight to continue. Although there might be no evidence that compliance with the ASTM standard will prevent mistakes, there is also no evidence that

compliance with the ASTM standard will not prevent mistakes.

Voluntary compliance with any minimum competency standard has not worked for the past 30 years, which is how long EPA and other organizations have tried to develop an acceptable standard for stack testers. There are many reasons why voluntary compliance has not worked, including disagreement among stack test companies on a minimum competency standard, and the sources’ often used practice of hiring the lowest bidder. The lack of voluntary compliance with a minimum competency standard is also why various States, including Louisiana, have developed their own stack testing regulatory standards. A driving force for the development of the ASTM standard was to prevent the patchwork of standards that was beginning to occur throughout the U.S. If each State were to develop its own standard for stack testing, testing costs would increase as stack testers performing work in multiple States would have to qualify in and abide by differing requirements in multiple jurisdictions. EPA notes that the Louisiana DEQ has agreed to cancel its stack testing accreditation program (see Document ID# EPA–HQ–OAR–2009–0837–0072 in the docket) and in its place substitute accreditation to ASTM D 7036–04. Louisiana DEQ also agrees to recognize third party accreditors such as the Stack Testing Accreditation Council.

Many of the proposed rule provisions of § 75.21(f) and section 6.1.2 have been finalized as proposed. Significant changes to these sections are discussed below.

## 2. Cost

### Background

EPA proposed to add § 75.21(f) and to revise section 6.1.2 of Appendix A to part 75 to require AETBs that perform certain part 75 QA tests to provide a certification that they conform with ASTM D 7036–04. EPA also revised § 75.59 and § 75.64 to include a small number of AETB-related recordkeeping and reporting requirements. For these requirements, an information collection request (ICR) supporting statement was developed, as required by the Paperwork Reduction Act.

## Summary of Comments, Responses and Rule Changes

*Comments:* Several commenters suggested that AETB costs were underestimated. One commenter stated that EPA’s economic analysis is highly flawed and was clearly prepared by

someone unfamiliar with the business side of the industry, but this commenter did not provide any supporting data. This commenter further stated that the proposed AETB requirements will not drive prices down, and whatever increase in price there is cannot necessarily be passed on to the customer. In addition, smaller testing firms suffer more from this increased cost, even though they may be the better choice in many cases. The same commenter noted that EPA “assumes in its economic analysis that the majority of tests done are for part 75. That is patently false, at least for many if not most companies.”

*Response:* The economic analysis only included Part 75 tests because the proposed rule only applies to Part 75 sources. Unless a stack test company accredits to ASTM D 7036–04 through, e.g., the Stack Testing Accreditation Council, the stack test company does not have to meet ASTM D 7036–04 for non-part 75 testing. The Agency notes that if a company chooses to accredit to the ASTM standard, it may be possible to limit the scope of accreditation to Part 75 testing. In any case, the proposed rule does not require accreditation. A letter of certification signed by senior management of the AETB will suffice.

*Comment:* One commenter suggested that EPA include: (1) The cost for staff time to develop and implement the quality manual required by the ASTM practice, including document control procedures, hiring of additional personnel, performance of annual audits, and documentation of corrective action, (2) application fees and the cost of preparing applications for accreditation and/or QI qualification, (3) the cost of QI exams, including tuition for preparatory courses, exam fees, and travel expenses, (4) any new costs associated with preparation of test plans and reports to comply with the specific criteria in the practice, and (5) cost of required records storage and backup.

*Response:* The Agency believes that AETBs should already be operating in a manner consistent with ASTM D 7036–04. However, EPA revised the ICR to include additional supporting detail for the estimated burden associated with increased annual quality-assurance and maintenance costs that would be passed on to a unit subject to Part 75. Based on information provided by stack testing firms, a conservative one percent increase was applied to the previously established annual O&M costs per unit at each respondent facility. This is based on the average stack testing industry costs of preparing a QA/QC manual (\$6,000), obtaining QSTI

certification (\$1,200), and annual operating costs of maintaining the quality control system (\$5,000–\$50,000 depending on size). The increased stack testing overhead costs translate into an increased performance test cost of \$68 to \$549 per RATA test depending on the size of the company. The increased cost per test drops even further if applied to all types of tests performed by typical stack testing companies. EPA assumes that the costs will be passed through to the customers, which are generally sources subject to part 75, including large electric utility and industrial companies.

### 3. Effective Dates

#### Background

EPA proposed to add § 75.59(a)(9)(xi), § 75.59(a)(15), § 75.59(b)(6), and § 75.59(d)(4) to require that AETB-related recordkeeping start on and after the date that is six months from the effective date of the final rule. The Agency proposed to revise Section 75.64(a)(5) to require the AETB-related reporting to start prior to or concurrent with the submittal of the relevant quarterly electronic data report on and after January 1, 2011.

#### Summary of Comments, Responses and Rule Changes

*Comment:* The Agency received requests to extend the AETB compliance deadline from three commenters. One of those commenters suggested that EPA extend the AETB compliance deadline to January 2012. None of the commenters thought that EPA was providing too much time. Several commenters requested that EPA clarify the effective dates of the AETB-related provisions.

*Response:* EPA agrees that the wording in the proposed rule could be clearer. The effective date of the final rule is 30 days from the date it is published in the **Federal Register**. The Agency agrees that a compliance deadline for the AETB-related provisions of 365 days from publication of the final rule in the **Federal Register** is more reasonable for several reasons. There are approximately 400 stack test companies in the U.S. Only about 30 percent of them have at least one qualified individual. But even these companies may not yet be fully compliant with ASTM D 7036–04. Further, the large amount of near term stack testing that must be performed to respond to the Agency's requests for information collection under Section 114 of the Clean Air Act to assess the emissions of hazardous air pollutants from electric generating units provides

even less time for companies to come into compliance with the AETB provisions. Therefore, to better ensure that every stack test company has a reasonable time to comply with ASTM D 7036–04, EPA has extended both the compliance date in § 75.21(f) and the commencement date in section 6.1.2(a) of Appendix A to 365 days after the date of publication of the final rule in the **Federal Register**. Section 75.64(a)(5) has also been revised to require the information in §§ 75.59(a)(15), (b)(6), and (d)(4) to be provided commencing 365 days after the publication date of the final rule in the **Federal Register**.

### 4. Accreditation

#### Background

EPA proposed to revise section 6.1.2(b) in Appendix A to part 75 to require a part 75 source owner or operator to obtain from an AETB a certification that as of the time of testing the AETB is operating in conformance with ASTM D 7036–04. This certification must be provided in the form of either (1) a certificate of accreditation for the relevant test methods issued by a recognized, national accreditation body; or (2) a letter of certification for the relevant test methods signed by a member of the senior management staff of the AETB. EPA also requested comment on whether the Agency should require accreditation.

#### Summary of Comments, Responses and Rule Changes

*Comment:* Several commenters opposed requiring accreditation. One commenter requested that EPA eventually require third party accreditation for all AETBs. The commenter recognizes, however, that the U.S. accreditation program is just beginning and that the requirement for all AETBs to be accredited may be premature, and suggested the following approach: Section 6.1.2(b)(2) should be amended to include a “sunset clause” for self-certified AETBs. Specifically, five years after the effective date of the final rule AETBs should not have the option to self-certify and must have a certificate of accreditation from a third party accreditation body. This five year period provides more than ample time for the maturation of U.S. AETB accreditation programs.

*Response:* The commenter did not provide any evidence to suggest that accreditation is any better at assuring compliance with ASTM D 7036–04 than self-certification. Over time, if evidence is found that self-certification is no longer appropriate, then at that time the

Agency could consider proposing revisions of the rule to require accreditation.

### 5. Scope of Testing

#### Background

EPA proposed to add § 75.21(f) and to revise section 6.1.2(b) in Appendix A to Part 75, among other things, to limit the scope of testing required to be performed by AETBs, as defined in § 72.2 of this chapter. Section 75.21(f) and section 6.1.2(b) would require AETBs that perform relative accuracy testing under 75.74(c)(2)(ii), section 6.5 of Appendix A to Part 75, and section 2.3.1 of Appendix B to Part 75, and stack testing under § 75.19 and section 2.1 of Appendix E to Part 75 to provide a certification that they conform with ASTM D 7036–04. Conformance to the requirements of ASTM D 7036–04 would apply only to these tests performed on Part 75 affected sources.

#### Summary of Comments, Responses and Rule Changes

*Comment:* One commenter suggested that if an AETB fails to declare a limit on the applicability of ASTM D 7036–04 and fails to perform any work in full conformance to ASTM D 7036–04, this would jeopardize even that work that may have been performed in accordance with the standard. The preamble to the proposed rule indicates that an AETB would be evaluated against its quality manual when assessing AETB conformance to the standard. The commenter recommends that the final rule clarify the limits of applicability of ASTM D 7036–04 when evaluating an AETB's conformance to ASTM D 7036–04.

*Response:* Section 4.1, Note 3 in ASTM D 7036–04 states: “There is no requirement to define a scope of testing. It is a requirement of this practice that prior to performing a test method for the first time, the AETB has in place resources, training, and QA/QC consistent with this practice to insure data of acceptable quality are produced.” It is EPA's intent in this rulemaking that the ASTM D 7036–04 scope of testing be limited to Part 75 relative accuracy test audits, and Part 75 stack tests related to Appendix E and low mass emitters. However, EPA understands the concern of the commenter and has revised section 6.1.2(a) of Appendix A to part 75 to allow an AETB to limit its conformance to ASTM D 7036–04 to units subject to this part and to the test methods required by this part. Section 6.1.2(b) has been similarly revised. Unless a stack test company accredits to ASTM D

7036–04 through, *e.g.*, the Stack Testing Accreditation Council, the stack test company does not have to meet ASTM D 7036–04 for non-part 75 testing. The Agency notes that even if a company chooses to accredit to the ASTM standard, it may be possible to limit the scope of accreditation to Part 75 testing. In any case, the proposed rule does not require accreditation. A letter of certification signed by senior management of the AETB will suffice.

## 6. Effect on Validity of Test Data

### Background

EPA proposed to add section 6.1.2(f) in Appendix A to Part 75, which states that meeting two conditions (1) providing to the owner or operator of a part 75 source with a certificate of accreditation or letter of certification that an AETB is operating in conformance with ASTM D 7036–04; and (2) having at least one Qualified Individual on site conducting or overseeing the applicable tests would be sufficient proof of validity of test data that otherwise meet the requirements of part 75.

### Summary of Comments, Responses and Rule Changes

*Comment:* One commenter strongly supported section 6.1.2(f), but explained that the provision should not be understood to validate data that do not otherwise meet the requirements of part 75. Another commenter strongly objected to inclusion of the provision in the rule and requested that EPA remove section 6.1.2(f). This commenter provided the following rationale:

“(1) This section has no legal consequence and no benefit. Certification of testers and of a Qualified Individual on or leading the test team will not change evaluations and use of tests and test reports: with or without it, regulators should evaluate tests and test reports, and, if they find the work and records valid, accept the ‘validity of test data that otherwise meet the requirements of this part’. This rule accomplishes requiring certified people to do the test. Once such people have performed the test, it has no more legal effect.

“(2) This section will give the false impression to those who do not know that Part 75 requires correct test performance that review is superseded by tester accreditation and QI participation, that their testing must be accepted as valid.

“(a) It is unfair and a disservice to all to give this impression to facilities and testers. It will lead to substandard testing, which may get approved anyway and costs everyone involved extra effort, time, and expense.

“(b) Many regulatory agencies will have this impression and will not reject invalid testing performed by accredited testers with QIs on their teams because they will believe that this section says they have to accept the

test results. Do not give this false impression. It will lead to worse testing and more acceptance of invalid testing.

“(3) Accreditation does not mean a test is valid. Some regulatory agencies will believe this section means this. This section then leads to lack of review and of enforcement of valid testing; the incentive for testers will be to get accreditation, then cut corners. We all know unplanned things happen while source testing that may require method modification. However, source testers seem to forget or not realize they are actually modifying the test method.”

*Response:* EPA understands that it may be unfair to hold an owner or operator of a source subject to Part 75 responsible for certain actions (or inactions) related to an external AETB’s compliance with ASTM D7036–04 and attempted to address this in section 6.1.2(f) of the proposed rule by limiting the responsibility of the owner or operator of a part 75 source.

As the commenter states, several sections of Part 75 require units subject to part 75 to meet certification and ongoing QA/QC requirements: § 75.4(f) requires sources using Appendix E to meet those requirements. Section 75.4(j) requires successful completion of certification tests or use of maximum potential concentration, maximum potential flow, maximum potential NO<sub>x</sub> emission rate, or use appropriate reference methods or another procedure approved by the Administrator. Section 75.5(b) states that no affected unit shall be operated without complying with the requirements of §§ 75.2–75.75 and Appendices A–G to part 75. Section 75.10(b) requires that sources meet the performance specifications in Appendix A to part 75. (The Appendix A relative accuracy performance specifications are also required for the ongoing relative accuracy tests in Appendix B to part 75.)

EPA believes that the language in Appendix A, section 6.1.2(f) is clear that all part 75 testing requirements must be met. However, the Agency understands the concern of the commenter, and has amended 6.1.2(f) in the final rule to read as follows: “Except as provided in paragraph (e), no RATA performed pursuant to § 75.74(c)(2)(ii), section 6.5 of appendix A to this part or section 2.3.1 of appendix B to this part, and no stack test under § 75.19 or Appendix E to this part (or portion of such a RATA or stack test) conducted by an AETB (as defined in § 72.2) shall be invalidated under this part as a result of the failure of the AETB to conform to ASTM D 7036–04. Validation of such tests is determined based on the other part 75 testing requirements. EPA recommends that proper observation of tests and review of test results continue,

regardless of whether an AETB fully conforms to ASTM D7036–04.”

The Agency also wishes to clarify that an AETB’s failure to conform to ASTM D 7036–04 with respect to testing at a particular unit does not affect its ability to certify conformance prior to conducting testing at another unit as long as it is following the procedures in ASTM D 7036–04 for addressing nonconformance.

## 7. Exams

### Background

EPA proposed to add section 6.1.2(e) in Appendix A to Part 75 to require having at least one Qualified Individual (QI) on site conducting or overseeing applicable tests. A QI must pass appropriate exam(s), described in ASTM D 7036–04, covering the test methods the QI will perform.

### Summary of Comments and Responses

No rule changes were required.

*Comment:* Several commenters requested that the QI exams be better targeted to the test methods the QI will actually perform, and not include additional test methods. A representative comment stated that the test program developed for QIs is excessive. The methods are grouped, and may not represent the type of work an individual or firm will conduct. For example, if a company elects not to perform 3–D probe work in Method 2F, there is no way to exclude these questions from the current QI test which puts this individual at a disadvantage if there are questions on the exam concerning a method the firm will not conduct.

*Response:* The QI exams provided by the Source Evaluation Society (SES) are created with the knowledge and wisdom of many experienced stack testers. Periodically, these exams are modified using feedback from people who have taken the exams.

The interdependency of emissions testing methods is inherent in any emissions testing program. EPA and the SES membership, which includes large and small stack test companies, believe that an individual who can pass a multiple method group exam is one who understands emissions testing principles broadly enough to lead a test team and can be expected to address the myriad of complicating issues that arise during a source test.

It is EPA’s understanding that the SES membership can and has evaluated and adjusted the qualifications approach from time to time. Commenters are welcome to work with SES to address concerns they may have. While

recognizing that there might be opportunities for improvement, the Agency supports the QI qualification exam program in its current form.

*Comment:* Several commenters stated that it makes no sense for an individual to sit for an exam that covers material for which the candidate is not qualified to perform or intends to perform. This means that an AETB that performs a limited scope of testing may legitimately argue that a qualified external exam provider is not available and may choose to offer internal exams. The current language in the preamble to the proposed rule favors an external exam provider. EPA should recognize the validity of internal examination providers when suggesting that sources obtain information about examination providers.

*Response:* Three comments were received on the subject of external as opposed to internal exams. Internally administered exams are allowed only if an external exam for that test method is not available. The current format of external exams covers a group of related test methods. If a QI desires to be certified for a particular test method and that test method is part of an external exam for a group of methods, that QI must take that external exam. An individual that has been qualified with an internal exam must re-qualify with an external exam within three years of the availability of an external exam or when a re-test is required, whichever is sooner. The ASTM D 7036-04 workgroup (in part, made up of small and large stack test companies) confirmed that, in general, an external exam is a better indication of qualification than an internal exam. The Agency agrees with this view because an externally administered exam may be more impartial, provide exam questions that have been better vetted, and may be less subject to abuse than an internally developed and administered exam.

#### 8. Posting Non-Compliant AETB Names Background

In section 6.1.2(g) of Appendix A to Part 75, EPA proposed that if the Administrator finds that the information submitted to an affected source by an AETB under this section or the information requested by an affected source under this section is either incomplete or inaccurate, the Administrator could post the name of the offending AETB on Agency Web sites, and provide the AETB a description of the failures to be remedied. The AETB name would be removed from the EPA Web sites once the failures were remedied.

#### Summary of Comments, Responses and Rule Changes

*Comment:* Several commenters agreed with the concept of posting the name of an offending AETB on Agency Web sites. One commenter agreed that posting the names of offending AETBs on the EPA Web site would provide a deterrent for non-conformance with ASTM D7036-04 and generally agrees with this approach. However, the commenter asserted that paragraph 6.1.2(g) should be amended to ensure that an AETB is notified and has the opportunity to correct any deficiencies before the name is posted on the Web site. The commenter was also concerned about the responsiveness of EPA in updating this list once the AETB has provided EPA with the required information. Therefore, the commenter suggested that a requirement should be added for EPA to respond to an AETB's submittal within 30 days, indicating whether the submittal is sufficient to remedy the problem. If so, the name of the AETB would be removed from the list. If EPA failed to respond within 30 days, the submittal would be assumed to be sufficient to remedy the problem and the name is removed from the list. Another commenter requested that the determination of accuracy and completeness in section 6.1.2(g) be solely based on the provisions of ASTM D 7036-04.

*Response:* EPA believes that the determination of accuracy and completeness should be based on ASTM D7036-04 and Part 75 taken together because Part 75 limits the application of ASTM D 7036-04 to only certain tests performed on part 75 sources. The Agency agrees that an AETB should have the opportunity to correct any deficiencies before its name is posted on the Web site and has therefore revised section 6.1.2(g) accordingly. If an owner or operator has requested information from an AETB and believes that the information provided by the AETB is either incomplete or inaccurate, the owner or operator may request the Administrator's assistance in remedying the alleged deficiencies. Upon such request, if the Administrator concurs that the information submitted to the source is either incomplete or inaccurate, the Administrator will provide the AETB a description of the deficiencies to be remedied. The Administrator's determination of completeness and accuracy of the information will be solely based on the provisions of ASTM D 7036-04 and this part. The Administrator may post the name of the offending AETB on Agency Web sites if, within 30 days of having

provided the AETB a description of the deficiencies to be remedied, the AETB does not satisfactorily respond to the source and notify the Administrator of the response via electronic mail. The AETB need not submit the information it provides to the owner or operator to the Administrator, unless specifically requested by the Administrator. If after the AETB's name is posted, the Administrator determines that the AETB's response is sufficient, the AETB's name will be removed from the EPA Web sites.

If, upon request by the Administrator, the AETB or the owner or operator provides to the Administrator any information identified as confidential business information (CBI), the Administrator will treat the information according to the provisions of 40 CFR part 2, subpart B. Note that the modifications to section 6.1.2(g) make section 6.1.2(h) redundant and it has been removed.

#### C. Other Amendments

##### 1. Compliance Dates for Units Adding New Stack or Control Device Background

Section 75.4(e)(2) only applies to existing Acid Rain Program units that are building a new stack, or adding control equipment. EPA proposed to extend the provision to include both existing and new units. For a project involving both a new stack or flue and installation of add-on emission controls, EPA proposed to revise § 75.4(e)(2) to require that the compliance window for required CEMS certification and/or recertification and/or diagnostic tests start on the date that emissions first exit to the atmosphere through the new stack or flue. The end of the compliance window would be the 90th operating day or the 180th calendar day (whichever occurs first) after the start date.

#### Summary of Comments, Responses and Rule Changes

*Comment:* One commenter stated that the proposed revisions to § 75.4(e) are consistent with the original intent of the provision, which was to address compliance deadlines for units that must relocate, replace, or retest monitoring systems as a result of the addition of new controls, regardless of when the unit commenced construction. This commenter further stated that the provision was never intended to draw a distinction between "existing" units as that term is defined under § 72.2 and other units with previously certified monitoring systems. The commenter suggested that the addition of

recertification and diagnostic tests also is consistent with EPA's intent and past implementation of the provision through guidance. However, the commenter objected to EPA's proposal to hold units that are constructing both a new stack and a control device to a single testing deadline based on use of the new stack. The commenter concluded that although most sources likely would try to meet the testing deadline under § 75.4(e) associated with the use of the new stack by timing the initial operation of the control device to coincide as closely as possible with the time that gases first exit to the atmosphere through the new stack, there is no valid reason for limiting an owner or operator to a single deadline or set of tests to validate data from the monitoring systems.

*Response:* EPA agrees in part with the commenter. As noted above, § 75.4(e)(2), on its face, applies only to existing units (which are generally units commencing commercial operation before November 1, 1990 and serving a generator with a nameplate capacity greater than 25 MWe) and thus was not intended to cover new units. However, EPA agrees that it is appropriate to expand § 75.4(e)(2) to provide a similar approach for monitoring compliance deadlines and missing data substitution for new stack construction and add-on SO<sub>2</sub> or NO<sub>x</sub> control installation at both existing and new units and to cover recertification and diagnostic tests, in addition to the certification tests covered by the existing provision. In addition, EPA agrees that in cases where a project involves both new stack construction and installation of add-on SO<sub>2</sub> or NO<sub>x</sub> controls, the initial routing of flue gas through the new stack and the initial operation of an add-on control device (*i.e.*, when reagent is first injected) should, if necessary, be treated as two separate events, each of which is allotted a flexible 90 operating day/180 calendar day window to complete all required certification and/or recertification and/or diagnostic testing of the monitoring systems installed on the new stack. Two separate compliance windows may be needed in cases where there is a long interval of time between the starting dates of the two events. Therefore, a new paragraph, (e)(3), has been added to § 75.4(e) to allow for completion of CEMS certification and/or recertification and/or diagnostic testing requirements for both new stack construction and new add-on SO<sub>2</sub> or NO<sub>x</sub> controls either: (a) Within the window of time provided for new stack construction; or (b) within the separate

window of time applicable to such event provided under § 75.4 (e)(1).

EPA also revised § 75.4(e) to address the reporting of CEMS data, in cases where only one compliance window is used, and where both windows are used. Section 75.4(e)(2), as revised, addresses how to report emissions or flow rate data after emissions first pass through the new stack or flue, or reagent is first injected into the flue gas desulfurization system or add-on NO<sub>x</sub> emission controls, until all required certification and/or recertification and/or diagnostic tests are successfully completed. For example, if section 2 of Appendix A to Part 75 requires two spans and ranges for the monitor that measures the pollutant being removed by the add-on SO<sub>2</sub> or NO<sub>x</sub> controls, certification of the high measurement scale is sufficient to initiate reporting of quality-assured data from that monitor. All data recorded on the certified high scale, including data that would ordinarily be required to be recorded on the low scale, may be reported as quality-assured for up to 60 unit or stack operating days after the first injection of reagent into the control device. Then, all required tests of the low measurement scale must be completed within the 90 operating day/180 calendar day compliance window of time associated with the first injection of reagent into the control device.

EPA believes that it is appropriate to allow temporary reporting of data on a certified high measurement scale in the case of installing and operating new add-on SO<sub>2</sub> or NO<sub>x</sub> controls, primarily because it often takes several days or weeks to stabilize a new add-on emissions control device so that the desired percentage reduction in the SO<sub>2</sub> or NO<sub>x</sub> emission levels is consistently achieved. During this period of time (known as the "shakedown" period), a significant percentage of the data from the SO<sub>2</sub> or NO<sub>x</sub> monitor (as applicable) is likely to be too high to be read on the low scale. Further, even data that can be recorded on the low scale during the shakedown period cannot be reported as quality-assured, because a RATA must be performed on the low scale in order to certify it, and this test cannot be done until the control device has been stabilized. The Agency believes that accepting low readings recorded on a certified high scale for a short period of time will not adversely impact the overall accuracy of the emissions data. Other certified CEMS that have only one (high) measurement scale record data on the lower part of the scale during short-term events such as startup and shutdown, and these data are accepted as quality-assured.

Revised § 75.4(e)(2)(ii) allows conditional data validation procedures in § 75.20(b)(3) to be used for the entire 90 operating day/180 calendar day window associated with new stack construction or addition of a new emissions control device, rather than limiting the amount of time available to complete the required testing to the shorter timelines in § 75.20(b)(3)(iv). This is appropriate for new stack construction because the monitoring systems on the new stack are brand new systems that must undergo certification testing. The provisions of § 75.20(b)(3) and sections 6.3.1(a), 6.3.2(a), 6.6.4(a), and 6.5(f) of Appendix A to Part 75 clearly allow conditional data validation to be used for the entire window of time specified in § 75.4, for the initial certification of monitoring systems. For the installation and operation of add-on emissions controls, it is also appropriate to allow the use of conditional data validation for the entire 90 operating day/180 calendar day window, because instability during the shakedown period prevents the required RATAs associated with the control device addition from being done during that time period, and the shakedown period often extends beyond the shorter conditional data validation timelines provided in § 75.20(b)(3)(iv).

A new paragraph, (e)(4), has also been added to § 75.4(e) to address special requirements that apply, in addition to the requirements in paragraph (e)(2), to a project involving both a new stack and a new add-on SO<sub>2</sub> or NO<sub>x</sub> control device. For such a project, the emissions data recorded by each CEMS on the new stack, starting on the date and hour on which emissions first exit to the atmosphere through the new stack and ending on the hour before the date and hour on which reagent is first injected into the control device, may be reported as quality assured (as provided in paragraph (e)(2)(ii) and (iv)) only if (1) a RATA of the CEMS (as described in paragraph (e)(4)(i)(A) or (ii)(A), depending on the CEMS involved) is successfully completed either prior to the first injection of reagent into the control device or in a period after the first injection when the control device is not operating; and (2) the rest of the required certification tests are successfully completed within the 90 operating day/180 calendar day compliance window that begins with the initial routing of flue gas through the new stack. For example, if the certification testing is done this way and conditional data validation is used in accordance with paragraph (e)(2)(ii), the CEMS data may be reported as quality-

assured, starting at the hour of the probationary calibration error test, provided that all of the major tests are passed in sequence, with no failures. The RATA must be performed prior to the initial injection of reagent into the control device, or in a period after the first injection when the control device is not operating, because the characteristics of the stack gas matrix (e.g., gas concentrations, temperature, moisture content, and concentration and flow profiles) when the control device is brought on-line will differ significantly from the stack characteristics of the uncontrolled unit. Therefore, to validate CEMS data in the uncontrolled time period between the first use of the new stack and the initial injection of reagent, a RATA that represents the actual stack conditions during that time interval must be performed and passed. The other, required certification tests, i.e., 7-day calibration error tests, cycle time tests, and linearity checks, are not affected by the characteristics of the stack gas matrix, and can be performed at any time during the allotted window of time, whether or not reagent is being injected.

Of course, under § 75.4(e)(2), to the extent additional testing requirements are triggered by the installation of the new add-on SO<sub>2</sub> or NO<sub>x</sub> controls in a project involving both a new stack and such new controls, these tests must be successfully completed during the 90 unit operating day/180 calendar day window that begins with the initial injection of reagent. Note that EPA intends to revise Questions 15.4, 15.6, and 15.7 in the "Part 75 Emissions Monitoring Policy Manual" to be consistent with today's revisions to § 75.4(e).

## 2. Reference Method 7E

### Background

EPA proposed to add § 75.22(a)(5)(v) to disallow multiple sampling runs to be conducted before performing the post-run system bias check or system calibration error check described in section 8.5 of EPA Reference Method 7E (40 CFR part 60, Appendix A-4), when this method is used to perform testing on part 75 affected sources.

### Summary of Comments and Responses

*Comment:* One commenter thought that although drift corrections at some point may become less accurate following multiple runs, it is not significant enough to require a post-run check after every run. A requirement to perform a post run bias or system calibration error check after every three runs would be sufficient to ensure

accurate drift corrections without needlessly adding to the length of the test. EPA should limit the number of runs allowed before performing a post-run check to three, rather than prohibiting multiple runs altogether.

Two other commenters stated that Method 7E already requires all test runs conducted since the previous bias check to be invalidated if the subsequent bias check reveals drift in excess of the required specification. These commenters further stated that invalidation of multiple test runs would extend the duration of the test period, leading to additional expense and potential operational difficulties (i.e., billing of additional hours by the test contractor, overtime for plant employees responsible for monitoring the testing, continuing to run the unit at the specified operating level rather than releasing the unit back to load control, and in some cases continuing to run the unit solely for the purpose of conducting the required test). According to the commenters, the potential for invalidation of multiple test runs is enough of a deterrent to discourage the use of equipment and/or testing firms that would have difficulty meeting the applicable bias and drift specifications. These two commenters also thought that the ability to validate multiple runs with one pair of bias and drift checks is of great value to facilities that are required to conduct both RATA and compliance tests. The ability through this provision to combine RATA and compliance testing reduces the overall amount of time required for testing and is of value to the industry as it prevents additional expense and potential operational difficulties. The commenters thought that the existing provision does not complicate the bias and drift correction calculations. Once these calculations are programmed into a spreadsheet, they are easy to apply. The commenters stated that EPA has not provided any substantive evidence for its reasoning that less accurate results will occur other than the statement that "less accurate gas concentration measurements are likely to result" (75 FR 33400). Finally, the commenters asserted that EPA should provide field evidence which shows that less accurate results have occurred as a result of this less time-consuming procedure before it proceeds with any rulemaking on this issue.

*Response:* No rule changes were required. The Agency understands that under an existing provision of Method 7E, multiple test runs may be quality assured for bias and drift as a group, rather than individually. This provision allows the user to conduct bias and drift

checks only at the beginning and end of a series of test runs, rather than conducting these checks before and after each individual run. The rationale is that if the tester can pass the quality assurance at the beginning and end of the series of runs, then the intermediate runs must be valid, and the quality of the reference method data has not been compromised. However this assumption is not necessarily true; therefore, multiple runs should not be allowed between bias and drift checks, as further explained in the response to the next comment, immediately below.

*Comment:* Two commenters favor allowing 63 minutes of continuous sampling time between bias and drift checks. According to the commenters, sampling for 63 consecutive minutes at a time is desirable because 63 minutes corresponds to the time needed to perform three 21-minute runs of a CEMS relative accuracy test audit (RATA) and also is long enough to obtain a complete compliance test (i.e., stack test) run.

Compliance tests often consist of three one-hour runs, and many sources have both RATA requirements and compliance test requirements. The commenters favor eliminating the bias and drift checks after each RATA run because it reduces the amount of time required to perform the testing.

*Response:* No rule changes were required. Generally speaking, it is good practice to perform emission testing in the most efficient manner possible without sacrificing data quality. However, EPA believes that the added assurance of data quality provided by performing bias and drift checks after each 21-minute RATA run far outweighs the small amount of time that could be saved by skipping the intermediate QA checks. Further, there is no reason why three 21-minute RATA runs cannot be averaged together to make one 63-minute compliance test run.

For typical compliance test applications of the method where the user is only concerned with showing compliance with an emissions limit, the accuracy of the individual test runs is not as essential as it is for Part 75 applications. The Agency does not object to the change made to Method 7E when the method is used for compliance test applications. Since the average of all test runs is used to assess compliance, the run-by-run percent inaccuracies due to changing bias and drift over the course of the testing will tend to cancel, resulting in acceptable overall average that is only slightly different from the average value that would have been obtained had the more stringent run-by-run quality assurance procedures been followed. Thus, for

compliance testing purposes, the commenters are correct in asserting that little is gained from performing the quality assurance testing before and after each run, so long as the overall specifications for bias and drift are met at the beginning and end of each test series.

However, under Part 75 the reference method measurements are generally used for a very different purpose and the inaccuracy that can be introduced by not following the run-by-run quality assurance is unacceptable. For Part 75, the reference methods are primarily used to directly assess the accuracy of a continuous emissions monitoring system on a run-by-run basis. The purpose of the relative accuracy test audits (RATA) is to conduct at least nine quality-assured independent reference measurements and compare those measurements to nine simultaneous measurements made by a continuous emissions monitoring system in its normal mode of operation. Since each run directly compares CEMS measurements to reference method measurements, any drift in the reference monitor during the course of the run must be assessed and accounted for. Method 7E provides a means of adjusting the reference method measurements for moderate drift (less than 3.0% of the span gas value over the course of a run). This correction is intended to tie the resulting reference value more closely to the EPA Protocol calibration gas standards which are traceable to the National Institute of Standards and Technology (NIST). The correction assumes that over the duration of the test run, the profile of any drift observed is linear. The longer the interval between bias/drift checks, the less likely it is that this linear approximation will hold true. Because the RATA is intended to compare nine independent, quality-assured reference measurements to nine simultaneous measurements from a CEMS, EPA finds that performing a bias and drift evaluation before and after a series of runs increases the uncertainty in the individual run measurements and has the potential to introduce error that would otherwise be eliminated by performing the bias and drift evaluation before and after each run. EPA believes that mass-based regulatory programs, such as the trading programs supported by Part 75 monitoring, need the added assurance of data quality provided by run-by-run bias and drift evaluations. The run-by-run quality assurance is consistent with Method 7E as it was originally written, and avoids the risk of

adding bias and uncertainty to the CEMS data through the RATA process.

EPA does not collect the actual reference method test data for Method 7E electronically in a manner that can be further analyzed. Therefore, we cannot properly assess how reducing the number of required bias and drift checks will impact data quality. We have no way of knowing how many test runs that should be invalidated would be assumed to be valid if we were to allow bias and drift checks to be done only before and after a series of runs. However, we do know that we can avoid that issue entirely by requiring the quality assurance checks to be performed before and after each run for part 75 applications.

In summary, EPA maintains that in view of the way that Method 7E data are used in the part 75 programs, run-by-run system bias and drift checks are necessary to eliminate measurement error that would otherwise be introduced by not quality-assuring each run individually. This QA approach also applies to Method 6C (the instrumental reference method for SO<sub>2</sub>) and to Method 3A (the instrumental method for O<sub>2</sub> and CO<sub>2</sub>), when those methods are used for part 75 applications. For a more detailed discussion of this issue, refer to the Response to Comments document.

### 3. Removal of Mercury Provisions Background

As a result of the Clean Air Mercury Rule (CAMR) having been vacated by the DC Circuit in *New Jersey v. EPA*, 517 F.3d 574 (D.C. Cir. 2008), EPA proposed to remove provisions of part 75 that were adopted in support of CAMR. To achieve this, sections dealing exclusively with mercury monitoring (CEMS and sorbent trap systems) would be removed, and other sections that applied both to mercury monitoring systems and other types of CEMS would be revised and re-promulgated, minus the references to mercury.

#### Summary of Comments, Responses and Rule Changes

*Comment:* One commenter found two provisions not included in EPA's proposal that should be re-promulgated because the portions referencing mercury (Hg) monitoring were vacated in CAMR. The provisions in question are found at § 75.53(e)(1)(iv), which refers to reporting of information on Hg monitors and sorbent trap monitoring systems, and § 75.53(e)(1)(x), which refers to information on each stack using an Hg component monitor. Although the Hg portions of these provisions are no

longer in effect, to be consistent with the other proposed revisions and to avoid confusion, the commenter stated that EPA should revise and re-promulgate these provisions again without the references to Hg. The commenter also requested that EPA ensure that these requirements are removed from the electronic data reporting format, schema, and instructions.

*Response:* The proposed rule revisions that would remove all references to mercury (Hg) monitoring from Part 75 have been finalized without modification. However, the commenter has correctly identified two references to Hg monitoring in § 75.53(e) which EPA apparently overlooked. In addition, the Agency has identified a third reference in § 75.53(e) and one other reference in § 75.57 that were inadvertently overlooked. Section 75.53(e)(1)(i)(E) refers to Hg emission controls, and Method of Determination Code (MODC) "15" in Table 4a in § 75.57 refers to "Hg concentration". The final rule removes all four of these references to Hg monitoring from part 75. All references to Hg monitoring and reporting have also been removed from the "ECMPS Reporting Instructions" (see the June 17, 2009 version and September 16, 2009 addendum, which are posted on the Clean Air Markets Division Web site at the following address: <http://www.epa.gov/airmarkets/business/ecmps/reporting-instructions.html>). However, certain schema elements had already been incorporated by the time of the court vacatur of CAMR, (e.g., the <CalibrationStandardData> record, which indicates whether elemental or oxidized mercury standards are used for daily calibration). EPA continues to affirm that it is unnecessary to remove such records from the reporting format (or schema) since there are no requirements to use these fields or any of the mercury specific codes. As such these records are essentially vestigial and need not be revised.

Finally, note that minor changes have been made to a few of the rule sections in which the Hg monitoring provisions were found. These changes were described under "Miscellaneous Corrections and Additions" in the preamble to the proposed rule, and have been finalized without modification.

### 4. Miscellaneous Amendments

EPA proposed to revise the Incorporation by Reference section 75.6(f)(3) to add Section 3—Small Volume Provers, First Edition, but inadvertently omitted the publication date, and failed to revise section 2.1.5.1

of appendix D to part 75 to include Section 3 in the American Petroleum Institute (API) Manual of Petroleum Measurement Standards citation. The final rule includes the Section 3 publication dates of July 1988, reaffirmed Oct 1993, and includes Section 3 in the API citation in section 2.1.5.1 of appendix D to part 75.

EPA has added definitions in section 72.2 for “Coverage Factor k” and “Expanded Uncertainty”. These definitions are consistent with the language used by the National Institute of Standards and Technology.

**II. 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 (Oct. 4, 1993)) and is therefore not subject to review under the Executive Order.

*B. Paperwork Reduction Act*

The information collection requirements in this rule have been submitted for approval to the Office of Management and Budget (OMB) under the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* The information collection requirements are not enforceable until OMB approves them. The Information Collection Request (ICR) document prepared by EPA has been assigned EPA ICR number 2203.04. The currently approved Information Collection Request (ICR) document prepared by EPA reflects the January 24, 2008 rule (EPA ICR Number 2203.02; OMB No.: 2060-0626). (OMB control numbers for EPA regulations are listed in 40 CFR part 9.) The information requirements covered by EPA ICR Number 2203.04 reflect the revisions to the requirements in 40 CFR Parts 72, and 75 that are being finalized in this action.

Basic information on the identity of EPA Protocol gas production sites and on the type of cylinders used by sources subject to part 75 will be collected by the Agency. These data will allow the Agency to verify that a source subject to part 75 is using EPA Protocol gases from EPA Protocol gas production sites that are participating in the Protocol Gas

Verification Program (PGVP), and to inform the gas cylinder selection for the PGVP audits. This same type of information will be collected when EPA Protocol gases are used to perform certain EPA test methods. The Agency anticipates that this will help improve the quality of results when these test methods are used.

EPA has added simple recordkeeping and reporting requirements to enable the Agency to verify that Qualified Individuals and Air Emission Testing Bodies meet the requirements of this rule. EPA maintains that the main costs for air emission testing bodies to comply with the minimum competency requirements in ASTM D7036-04 are associated with taking qualified individual (QI) competency exams, and the development and revision of quality assurance manuals. The costs will be passed through to the customers (sources subject to part 75, primarily large electric utility and industrial companies), and the Agency notes that these costs will be partially offset by the savings generated by fewer failed or incorrectly performed relative accuracy test audits (RATAs), and fewer repeat tests required.

EPA is also requiring certain recordkeeping and reporting provisions for various data elements that were inadvertently left out of the August 22, 2006 proposed rule and the January 24, 2008 final rule. These data elements have already been incorporated in the data acquisition and handling systems of units subject to part 75, and are required to make EPA’s new reporting software data requirements consistent with the regulatory requirements.

All of the above data collections are mandatory under 40 CFR part 75. None of the data are considered confidential business information under 40 CFR part 2, subpart B.

EPA received several comments that the costs were underestimated in the ICR and that more supporting detail was needed. The Agency has revised the ICR for the final rule to include (a) 600 hours of contractor time in Agency costs to account for ECMPS software changes, (b) additional one time DAHS upgrade respondent costs of \$378,500, and (c) additional supporting detail.

The final rule does not significantly change the existing requirements in 40

CFR parts 72, and 75 and thus does not significantly change the existing information collection burden. The total annual respondent burden is estimated to be 2,254 hours, with total annual labor and O&M costs estimated to be \$1,460,489. This estimate includes the burden associated with the increase in fees from AETBs and PGVP vendors resulting from their compliance with the new requirements in the rule as well as the small labor burden for sources to review the new requirements and comply with the modified recordkeeping and reporting requirements (*See Exhibits 1 and 2*). Burden is defined at 5 CFR 1320.3(b). The respondent burden for this collection of information is estimated to be a small fraction of both the 124,976 labor hours, and the \$8,581,420 total cost that were calculated for the existing supporting statement (ICR 2203.02) for revisions to 40 CFR parts 72 and 75.

Most of these costs are expected to be borne by the private sector and will be passed through to the customers (sources subject to part 75, primarily large electric utility and industrial companies, or the rate payers). The Agency notes that some of the overall cost will be offset by the savings generated by fewer failed or incorrectly performed daily calibration error tests, quarterly linearity checks, and relative accuracy test audits (RATAs), and fewer repeat tests required.

Exhibits 1 and 2 summarize the respondent burden and cost estimates performed for the ICR (2203.04) supporting statement for revisions to 40 CFR parts 72 and 75. EPA estimates that: (a) 1,249 ARP sources and 253 additional CAIR sources will need to review the revised requirements and comply with the modified reporting requirements; and (b) 3,736 ARP sources and 777 additional CAIR sources will need to perform quality assurance testing and maintenance tasks. Low mass emissions units will not have to modify their DAHS, and sources with only new units already have their initial startup burdens and costs accounted for in the underlying program ICRs. Exhibit 1 shows the total burden and total cost based on this respondent universe.

**EXHIBIT 1—INCREASED RESPONDENT BURDEN/COST (LABOR ONLY) ESTIMATES RELATED TO REVISIONS OF 40 CFR PARTS 72 AND 75**

Information collection activity	Mean hourly rate	Hours per activity/year	Number of respondents (facilities)	Respondent hours/year	Total labor cost/year
ARP Respondents One Time Rule Review	\$80.71/Hr .....	1	1,249	1,249	\$100,807

EXHIBIT 1—INCREASED RESPONDENT BURDEN/COST (LABOR ONLY) ESTIMATES RELATED TO REVISIONS OF 40 CFR PARTS 72 AND 75—Continued

Information collection activity	Mean hourly rate	Hours per activity/year	Number of respondents (facilities)	Respondent hours/year	Total labor cost/year
ARP Respondents Compliance with Modified Reporting Requirements.	\$80.71/Hr .....	0.5	1,249	624.5	50,444
CAIR Respondents One Time Rule Review	\$80.71/Hr .....	1	253	253	20,420
CAIR Respondents Compliance with Modified Reporting Requirements.	\$80.71/Hr .....	0.5	253	126.5	10,210
Total .....	.....	.....	1,502	2,254	181,881

EXHIBIT 2—INCREASED RESPONDENT BURDEN/COST (QA AND MAINTENANCE) ESTIMATES RELATED TO REVISIONS OF 40 CFR PARTS 72 AND 75

Information collection activity	Previously established cont./O&M cost	Increased cont./O&M cost per respondent	Number of respondents (units)	Increased total cost/year
<b>ARP Perform QA Testing and Maintenance</b>				
Model A (CEMS) .....	\$31,949	\$319	1,046	\$333,674
Model C (App D—NO <sub>x</sub> CEM) .....	17,818	178	2,107	375,046
Model D (App D and E) .....	1,843	19	438	8,322
Model E (LME) .....	1,991	20	145	2,900
One Time DAHS Upgrade <sup>1</sup> .....	.....	500	631	315,500
<b>CAIR Perform QA Testing and Maintenance</b>				
• Non ARP Sources in PM/O <sub>3</sub> and PM Only States:				
—Solid Fuel: SO <sub>2</sub> , NO <sub>x</sub> , and Flow CEMS (units) .....	31,200	312	102	31,824
—Gas-Oil: NO <sub>x</sub> CEMS and App D (units) .....	17,400	174	493	85,782
—Gas-Oil Peaking Units: App D, App E, or LME methods (units) .....	1,800	18	150	2,700
One Time DAHS Upgrade <sup>1</sup> .....	.....	500	119	59,500
• Non ARP Sources in O <sub>3</sub> Only States:				
—Solid Fuel: SO <sub>2</sub> , NO <sub>x</sub> , and Flow CEMS (units) .....	20,800	208	4	832
—Gas-Oil: NO <sub>x</sub> CEMS and App D (units) .....	17,400	174	28	4,872
One Time DAHS Upgrade <sup>1</sup> .....	.....	500	7	3,500
—Gas-Oil Peaking Units: App D, App E, or LME methods (units) .....	1,800	18	0	0
<b>PGVP Increased Costs</b>				
(\$2 per cylinder at an assumed average of 6 cylinders per year) .....	.....	12	4,513	54,156
Total .....	.....	.....	.....	1,278,608

<sup>1</sup> To calculate the number of units required to perform a DAHS upgrade, it was assumed that 80% of applicable CEMS units would be covered by an existing service contract and not subject to the annualized \$1500 fee.

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

When this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in this final rule.

*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 today's rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less

than 50,000; or (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

EPA conducted a screening analysis of today's rule on small entities in the following manner. The SBA defines small utilities as any entity and associated affiliates whose total electric output for the preceding fiscal year did not exceed 4 million megawatt hours. The SBA 4 million megawatt hour threshold was applied to the Energy Information Administration (EIA) Annual Form EIA-923, "Power Plant Operations Report" 2008 net generation megawatt hour data and results in an estimated 1169 facilities. This data is

then paired with facility owner and associated affiliates data (owners with net generation over 4 million were disregarded) resulting in a total of 620 small entities with a 2008 average net generation of 650,169 megawatt hours. Multiplying net generation by the 2009 EIA average retail price of electricity (9.72 cents per kilowatt hour), the average revenue stream per small entity was determined to be \$63,196,427 dollars. In contrast the average respondent costs burden for this rule was determined to be \$972.36 per year, which is considerably less than one percent of the estimated average revenue stream per entity. All of the 620 small entities except for one had respondent costs that were less than one percent of the estimated revenue stream.

After considering the economic impacts of today's rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. All but one of the 620 small electric utilities directly affected by this final rule are expected to experience costs that are well under one percent of their estimated revenues.

The rule revisions represent minor changes to existing monitoring requirements under part 75. There will be some small level of annual costs to participate in a gas audit program, taking a qualified stack test individual competency exam and developing or revising a quality assurance manual, and a slight up-front cost to reprogram existing electronic data reporting software used under Part 75. The Agency notes that these costs will be partially offset by the savings generated by fewer failed or incorrectly performed daily calibration error tests, quarterly linearity checks, and relative accuracy test audits (RATAs), and fewer repeat tests required.

#### *D. Unfunded Mandates Reform Act*

This rule does not contain a Federal mandate that may result in expenditures of \$100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. The total annual respondent burden is estimated to be 2,254 hours, with total annual labor and O&M costs estimated to be \$1,460,489. This estimate includes the burden associated with the increase in fees from AETBs and PGVP vendors resulting from their compliance with the new requirements in the rule as well as the small labor burden for sources to review the new requirements and comply with the modified recordkeeping and reporting requirements (See Exhibits 1 and 2). The respondent burden for this collection of

information is estimated to be a small fraction of both the 124,976 labor hours, and the \$8,581,420 total cost that were calculated for the existing supporting statement (ICR 2203.02) for revisions to 40 CFR parts 72 and 75. The costs incurred by AETBs and PGVP vendors will be passed through to their customers (sources subject to Part 75, primarily large electric utility and industrial companies, or the rate payers). The Agency notes that much of the costs will be offset by the savings generated by fewer failed or incorrectly performed daily calibration error tests, quarterly linearity checks, and relative accuracy test audits (RATAs), and fewer repeat tests required. Thus, this rule is not subject to the requirements of sections 202 or 205 of UMRA.

This rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. This rule would generally affect large electric utility or industrial companies.

#### *E. Executive Order 13132: Federalism*

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 final rule primarily amends the Protocol Gas Verification Program, and the minimum competency requirements for air emission testing (first promulgated on January 24, 2008 (See 73 FR 4340, 4364, and 4365)) by having specialty gas company funds go to the National Institute of Standards and Technology, who has statutory authority to receive such funds, to fund gas cylinder analyses, by changing the rule language to rely on certain documentation provided at the time of stack testing as sufficient proof of validity of test data that otherwise meets the requirements of Part 75, by adding simple recordkeeping/reporting requirements, and by extending relevant compliance deadlines. Thus, Executive Order 13132 does not apply to this final rule.

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

This final rule does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). This final rule primarily amends the Protocol Gas Verification Program, and the minimum competency requirements for air emission testing

(first promulgated on January 24, 2008 (See 73 FR 4340, 4364, and 4365)) by having specialty gas company funds go to the National Institute of Standards and Technology, who has statutory authority to receive such funds, to fund gas cylinder analyses, by changing the rule language to rely on certain documentation provided at the time of stack testing as sufficient proof of validity of test data that otherwise meets the requirements of part 75, by adding simple recordkeeping/reporting requirements, and by extending relevant compliance deadlines. Thus, Executive Order 13175 does not apply to this final rule.

#### *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 final rule 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 That Significantly Affect Energy Supply, Distribution, or Use*

This rule is not subject to Executive Order 13211, entitled "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355 (May 22, 2001)), because it is not a significant regulatory action under Executive Order 12866.

#### *I. National Technology Transfer Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 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 rulemaking involves technical standards. Therefore, the Agency conducted a search to identify

potentially applicable voluntary consensus standards. The Agency found an applicable voluntary consensus standard, ASTM D 7036-04, Standard Practice for Competence of Air Emission Testing Bodies, for use with the air emission testing body provisions of the final rule. However, EPA could not identify any applicable voluntary consensus standard for the Protocol Gas Verification Program. Therefore, for the PGVP, EPA has decided to use "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards," September 1997, as amended August 25, 1999, EPA-600/R-97/121 or such revised procedure as approved by the Administrator.

*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 primarily amends the Protocol Gas Verification Program, and the minimum competency requirements for air emission testing (first promulgated on January 24, 2008 (See 73 FR 4340, 4364, and 4365)) by having specialty gas company funds go to the National Institute of Standards and Technology, who has statutory authority to receive such funds, to fund gas cylinder analyses, by changing the rule language to rely on certain documentation provided at the time of stack testing as sufficient proof of validity of test data that otherwise meets the requirements of Part 75, by adding simple recordkeeping/reporting requirements, and by extending relevant compliance deadlines.

*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 on April 27, 2011.

*L. Petitions for Judicial Review*

Under Clean Air Act section 307(b)(1), petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by May 27, 2011. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review, nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such a rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2) of the Administrative Procedures Act.)

**List of Subjects**

*40 CFR Part 72*

Environmental protection, Acid rain, Administrative practice and procedure, Air pollution control, Electric utilities, Carbon dioxide, Continuous emission monitoring, Intergovernmental relations, Nitrogen oxides, Reporting and recordkeeping requirements, Sulfur oxides, Reference test methods, Incorporation by reference.

*40 CFR Part 75*

Environmental protection, Acid rain, Administrative practice and procedure, Air pollution control, Electric utilities, Carbon dioxide, Continuous emission monitoring, Intergovernmental relations, Nitrogen oxides, Reporting and recordkeeping requirements, Sulfur oxides, Reference test methods, Incorporation by reference.

Dated: March 10, 2011.

**Lisa P. Jackson,**  
*Administrator.*

For the reasons set forth in the preamble, parts 72 and 75 of chapter I of title 40 of the Code of Federal Regulations are amended as follows:

**PART 72—PERMITS REGULATION**

■ 1. The authority citation for part 72 continues to read as follows:

**Authority:** 42 U.S.C. 7601 and 7651, *et seq.*

■ 2. Section 72.2 is amended by:

■ a. Revising the definitions of "Air Emission Testing Body (AETB)", "EPA Protocol Gas", "EPA Protocol Gas Verification Program", and "Qualified individual";

■ b. Revising the introductory text of the definition of "Continuous emission monitoring system or CEMS";

■ c. Removing paragraph (7) of the definition of "Continuous emission monitoring system or CEMS";

■ d. Removing the definitions of "NIST traceable elemental Hg standards", "NIST traceable source of oxidized Hg", "Sorbent trap monitoring system", and "Specialty Gas Producer"; and

■ e. Adding in alphabetical order definitions for "Coverage Factor k", "EPA Protocol Gas Production Site", "Expanded uncertainty", and "Specialty Gas Company", to read as follows:

**§ 72.2 Definitions.**

\* \* \* \* \*

*Air Emission Testing Body (AETB)* means a company or other entity that provides to the owner or operator the certification required by section 6.1.2(b) of appendix A to part 75 of this chapter.

\* \* \* \* \*

*Continuous emission monitoring system or CEMS* means the equipment required by part 75 of this chapter used to sample, analyze, measure, and provide, by means of readings recorded at least once every 15 minutes (using an automated data acquisition and handling system (DAHS)), a permanent record of SO<sub>2</sub>, NO<sub>x</sub>, or CO<sub>2</sub> emissions or stack gas volumetric flow rate. The following are the principal types of continuous emission monitoring systems required under part 75 of this chapter. Sections 75.10 through 75.18, and § 75.71(a) of this chapter indicate which type(s) of CEMS is required for specific applications:

\* \* \* \* \*

*Coverage Factor k* means, in general, a value chosen on the basis of the desired level of confidence to be associated with the interval defined by  $U = k u_c$ . Typically, k is in the range 2 to 3. When the normal distribution applies and  $u_c$  is a reliable estimate of the standard deviation of y,  $U = 2 u_c$  (*i.e.*, k = 2) defines an interval having a level of confidence of approximately 95%, and  $U = 3 u_c$  (*i.e.*, k = 3) defines

an interval having a level of confidence greater than 99%.

\* \* \* \* \*

EPA Protocol Gas means a calibration gas mixture prepared and analyzed according to section 2 of the "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards," September 1997, as amended August 25, 1999, EPA-600/R-97/121 (incorporated by reference, see § 72.13) or such revised procedure as approved by the Administrator.

EPA Protocol Gas Production Site means a site that produces or blends calibration gas mixtures prepared and analyzed according to section 2 of the "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards," September 1997, as amended August 25, 1999, EPA-600/R-97/121 (incorporated by reference, see § 72.13) or such revised procedure as approved by the Administrator.

EPA Protocol Gas Verification Program or PGVP means a calibration gas audit program described in § 75.21(g) of this chapter and implemented by EPA in cooperation with the National Institute of Standards and Technology (NIST).

\* \* \* \* \*

Expanded uncertainty means a measure of uncertainty that defines an interval about the measurement result y within which the value of the measurand Y can be confidently asserted to lie. Although the combined standard uncertainty u\_c is used to express the uncertainty of many measurement results, for some commercial, industrial, and regulatory applications (e.g., when health and safety are concerned), what is often required is an expanded uncertainty, suggested symbol U, and is obtained by multiplying u\_c(y) by a coverage factor, suggested symbol k. Thus U = ku\_c(y) and it is confidently believed that Y is greater than or equal to y - U, and is less than or equal to y + U, which is commonly written as Y = y ± U.

\* \* \* \* \*

Qualified individual (QI) means an individual who is identified by an AETB as meeting the requirements described in ASTM D 7036-04 "Standard Practice for Competence of Air Emission Testing Bodies" (incorporated by reference, see § 72.13), as of the date of testing.

\* \* \* \* \*

Specialty Gas Company means an organization that wholly or partially owns or operates one or more EPA Protocol gas production sites.

\* \* \* \* \*

■ 3. Section 72.13 is amended by:

- a. Revising paragraph (a) introductory text;
- b. Adding paragraph (a)(5); and
- c. Adding paragraph (b), to read as follows:

§ 72.13 Incorporation by reference.

\* \* \* \* \*

(a) The following materials are available for purchase from the following address: American Society for Testing and Material (ASTM) International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania 19428-2959, phone: 610-832-9585, http://www.astm.org/DIGITAL\_LIBRARY/index.shtml.

\* \* \* \* \*

(5) ASTM D 7036-04, Standard Practice for Competence of Air Emission Testing Bodies, for § 72.2.

(b) A copy of the following material is available from http://www.epa.gov/ttn/emc/news.html (see postings for Sections 1, 2, 3, 4, Appendices, Spreadsheets, and the "Read before downloading Section 2" revision posted August 27, 1999): EPA-600/R-97/121, EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards, September 1997, as amended August 25, 1999, U.S. Environmental Protection Agency, for § 72.2.

PART 75—CONTINUOUS EMISSION MONITORING

■ 4. The authority citation for part 75 continues to read as follows:

Authority: 42 U.S.C. 7601, 7651k, and 7651k note.

§ 75.2 [Amended]

- 5. Section 75.2 is amended by removing paragraph (d).
- 6. Section 75.4 is amended by:
  - a. Revising paragraphs (b)(2) and (c)(2);
  - b. Revising paragraph (d) introductory text; and
  - c. Revising paragraphs (d)(1) and (e), to read as follows:

§ 75.4 Compliance dates.

\* \* \* \* \*

(b) \* \* \*  
(2) 180 calendar days after the date the unit commences commercial operation, notice of which date shall be provided under subpart G of this part.

(c) \* \* \*  
(2) 180 calendar days after the date on which the unit becomes subject to the requirements of the Acid Rain Program, notice of which date shall be provided under subpart G of this part.

(d) This paragraph (d) applies to affected units under the Acid Rain Program and to units subject to a State

or Federal pollutant mass emissions reduction program that adopts the emission monitoring and reporting provisions of this part. In accordance with § 75.20, for an affected unit which, on the applicable compliance date, is either in long-term cold storage (as defined in § 72.2 of this chapter) or is shut down as the result of a planned outage or a forced outage, thereby preventing the required continuous monitoring system certification tests from being completed by the compliance date, the owner or operator shall provide notice of such unit storage or outage in accordance with § 75.61(a)(3) or § 75.61(a)(7), as applicable. For the planned and unplanned unit outages described in this paragraph (d), the owner or operator shall ensure that all of the continuous monitoring systems for SO<sub>2</sub>, NO<sub>x</sub>, CO<sub>2</sub>, opacity, and volumetric flow rate required under this part (or under the applicable State or Federal mass emissions reduction program) are installed and that all required certification tests are completed no later than 90 unit operating days or 180 calendar days (whichever occurs first) after the date that the unit recommences commercial operation, notice of which date shall be provided under § 75.61(a)(3) or § 75.61(a)(7), as applicable. The owner or operator shall determine and report SO<sub>2</sub> concentration, NO<sub>x</sub> emission rate, CO<sub>2</sub> concentration, and flow rate data (as applicable) for all unit operating hours after the applicable compliance date until all of the required certification tests are successfully completed, using either:

(1) The maximum potential concentration of SO<sub>2</sub> (as defined in section 2.1.1.1 of appendix A to this part), the maximum potential NO<sub>x</sub> emission rate, as defined in § 72.2 of this chapter, the maximum potential flow rate, as defined in section 2.1.4.1 of appendix A to this part, or the maximum potential CO<sub>2</sub> concentration, as defined in section 2.1.3.1 of appendix A to this part; or

\* \* \* \* \*

(e) In accordance with § 75.20, if the owner or operator of an affected unit completes construction of a new stack or flue, or a flue gas desulfurization system or add-on NO<sub>x</sub> emission controls, after the applicable deadline in paragraph (a), (b), or (c) of this section:

(1) Except as otherwise provided in paragraph (e)(3) of this section, the owner or operator shall ensure that all required certification and/or recertification and/or diagnostic tests of the monitoring systems required under this part (i.e., the SO<sub>2</sub>, NO<sub>x</sub>, CO<sub>2</sub>,

opacity, and volumetric flow rate monitoring systems, as applicable) are completed not later than 90 unit operating days or 180 calendar days (whichever occurs first) after:

(i) For the event of construction of a new stack or flue, the date that emissions first exit to the atmosphere through the new stack or flue, notice of which date shall be provided under subpart G of this part; or

(ii) For the event of installation of a flue gas desulfurization system or add-on NO<sub>x</sub> emission controls, the date that reagent is first injected into the flue gas desulfurization system or the add-on NO<sub>x</sub> emission controls, as applicable, notice of which date shall be provided under subpart G of this part.

(2) The owner or operator shall determine and report SO<sub>2</sub> concentration, NO<sub>x</sub> emission rate, CO<sub>2</sub> concentration, and volumetric flow rate data for all unit or stack operating hours after emissions first pass through the new stack or flue, or reagent is first injected into the flue gas desulfurization system or add-on NO<sub>x</sub> emission controls, as applicable, until all required certification and/or recertification and/or diagnostic tests are successfully completed, using:

(i) The applicable missing data substitution procedures under §§ 75.31 through 75.37;

(ii) The conditional data validation procedures of § 75.20(b)(3), except that conditional data validation may, if necessary, be used for the entire window of time provided under paragraph (e)(1) of this section in lieu of the periods specified in § 75.20(b)(3)(iv);

(iii) Reference methods under § 75.22(b);

(iv) Quality-assured data recorded on the high measurement scale of the monitor that measures the pollutant being removed by the add-on emission controls (*i.e.*, SO<sub>2</sub> or NO<sub>x</sub>, as applicable), if, pursuant to section 2 of appendix A to this part, two spans and ranges are required for that monitor and if the high measurement scale of the monitor has been certified according to § 75.20(c), section 6 of appendix A to this part, and, if applicable, paragraph (e)(4)(i) of this section. Data recorded on the certified high scale, including data that ordinarily would be required to be recorded on the low scale, pursuant to section 2.1.1.4(g) or 2.1.2.4(f) of appendix A to this part, may be reported as quality-assured for a period not to exceed 60 unit or stack operating days after the date and hour that reagent is first injected into the control device. In order for the high and low scale readings from the monitor to be reported as quality-assured for more than 60 unit

or stack operating days after the date and hour that reagent is first injected into the control device, all required tests of the low measurement scale must be performed and passed within the window of time provided under paragraph (e)(1)(ii) of this section; or

(v) Another procedure approved by the Administrator pursuant to a petition under § 75.66.

(3) If a particular project involves both the event of new stack or flue construction and the event of installation of a flue gas desulfurization system or add-on NO<sub>x</sub> emission controls, the owner or operator shall either:

(i) Complete all of the monitoring system certification and/or recertification and/or diagnostic testing requirements of both events within the window of time provided under paragraph (e)(1)(i) of this section; or

(ii) Complete all of the monitoring system certification and/or recertification and/or diagnostic testing requirements of each event within the separate window of time applicable to such event provided under paragraph (e)(1) of this section.

(4) For the project described in paragraph (e)(3) of this section, the emissions data from each CEMS installed on the new stack recorded in the interval of time starting on the date and hour on which emissions first exit to the atmosphere through the new stack and ending on the hour before the date and hour on which reagent is first injected into the control device may be reported as quality assured:

(i) For the CEMS that includes the monitor that measures the pollutant being removed by the add-on emission controls (*i.e.*, SO<sub>2</sub> or NO<sub>x</sub>, as applicable):

(A) Only if the relative accuracy test audit (RATA) of the high measurement scale of the monitor is successfully completed either prior to the date and hour of the first injection of reagent into the emission control device, or after that date and hour during a period when the control device is not operating, but still within the window of time provided under paragraph (e)(1)(i) of this section, and the rest of the certification tests required under § 75.20(c) and section 6 of appendix A to this part for the high measurement scale of the monitor are successfully completed within the window of time provided under paragraph (e)(1)(i) of this section;

(B) Beginning with:

(1) The first unit or stack operating hour after successful completion of all of the certification tests in accordance with paragraph (e)(4)(i)(A) of this section; or

(2) The hour of the probationary calibration error test (see § 75.20(b)(3)(ii)), if conditional data validation is used and all of the certification tests are successfully completed in accordance with paragraph (e)(4)(i)(A) of this section, with no test failures. If any required test is failed or aborted or is otherwise not in accordance with paragraph (e)(4)(i)(A) of this section, data validation shall be done according to § 75.20(b)(3)(vii).

(ii) For a CEMS other than one addressed in paragraph (e)(4)(i) of this section:

(A) Only if the relative accuracy test audit (RATA) of the CEMS is successfully completed either prior to the date and hour of the first injection of reagent into the emission control device, or after that date and hour during a period when the control device is not operating, but still within the window of time provided under paragraph (e)(1)(i) of this section, and the rest of the certification tests required under § 75.20(c) and section 6 of appendix A to this part for the CEMS are successfully completed within the window of time provided under paragraph (e)(1)(i) of this section;

(B) Beginning with:

(1) The first unit or stack operating hour after successful completion of all of the certification tests in accordance with paragraph (e)(4)(ii)(A) of this section; or

(2) The hour of the probationary calibration error test (see § 75.20(b)(3)(ii)), if conditional data validation is used and all of the certification tests are successfully completed in accordance with paragraph (e)(4)(ii)(A) of this section, with no test failures. If any required test is failed or aborted or is otherwise not in accordance with paragraph (e)(4)(ii)(A) of this section, data validation shall be done according to § 75.20(b)(3)(vii).

\* \* \* \* \*

■ 7. Section 75.6 is amended by:

■ a. Revising paragraph (a) introductory text;

■ b. Removing and reserving paragraphs (a)(38), (a)(43), and (a)(44);

■ c. Revising paragraphs (a)(48) and (f)(3); and

■ d. Adding paragraph (g), to read as follows:

**§ 75.6 Incorporation by reference.**

\* \* \* \* \*

(a) The following materials are available for purchase from the following address: American Society for Testing and Material (ASTM)

International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania, 19428-2959, phone: 610-832-9585, [http://www.astm.org/DIGITAL\\_LIBRARY/index.shtml](http://www.astm.org/DIGITAL_LIBRARY/index.shtml).

\* \* \* \* \*

(38) [Reserved]

\* \* \* \* \*

(43) [Reserved]

(44) [Reserved]

\* \* \* \* \*

(48) ASTM D7036-04, Standard Practice for Competence of Air Emission Testing Bodies, for § 75.21, § 75.59, and appendix A to this part.

\* \* \* \* \*

(f) \* \* \*

(3) American Petroleum Institute (API) Manual of Petroleum Measurement Standards, Chapter 4—Proving Systems, Section 2—Pipe Provers (Provers Accumulating at Least 10,000 Pulses), Second Edition, March 2001, Section 3—Small Volume Provers, First Edition, July 1988, Reaffirmed Oct 1993, and Section 5—Master-Meter Provers, Second Edition, May 2000, for appendix D to this part.

\* \* \* \* \*

(g) A copy of the following material is available from <http://www.epa.gov/ttn/emc/news.html> (see postings for Sections 1, 2, 3, 4, Appendices, Spreadsheets, and the “Read before downloading Section 2” revision posted August 27, 1999): EPA-600/R-97/121, EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards, September 1997, as amended August 25, 1999, U.S. Environmental Protection Agency, for § 75.21, and appendix A to this part.

- 8. Section 75.10 is amended by:
- a. Revising the second sentence of paragraph (d)(1); and
- b. Revising the first sentence of paragraph (d)(3), to read as follows:

**§ 75.10 General operating requirements.**

\* \* \* \* \*

(d) \* \* \*

(1) \* \* \* The owner or operator shall reduce all SO<sub>2</sub> concentrations, volumetric flow, SO<sub>2</sub> mass emissions, CO<sub>2</sub> concentration, O<sub>2</sub> concentration, CO<sub>2</sub> mass emissions (if applicable), NO<sub>x</sub> concentration, and NO<sub>x</sub> emission rate data collected by the monitors to hourly averages. \* \* \*

\* \* \* \* \*

(3) Failure of an SO<sub>2</sub>, CO<sub>2</sub>, or O<sub>2</sub> emissions concentration monitor, NO<sub>x</sub> concentration monitor, flow monitor, moisture monitor, or NO<sub>x</sub>-diluent continuous emission monitoring system to acquire the minimum number of data points for calculation of an hourly

average in paragraph (d)(1) of this section shall result in the failure to obtain a valid hour of data and the loss of such component data for the entire hour. \* \* \*

\* \* \* \* \*

**§ 75.15 [Removed and reserved]**

- 9. Section 75.15 is removed and reserved.
- 10. Section 75.20 is amended by:
- a. Revising paragraph (a)(5)(i);
- b. Revising the first sentence of paragraph (b) introductory text;
- c. Revising paragraph (c)(1) introductory text;
- d. Revising paragraphs (c)(1)(ii) and (c)(1)(iii);
- e. Removing paragraph (c)(1)(vi);
- f. Removing and reserving paragraph (c)(9); and
- g. Removing paragraph (d)(2)(ix), to read as follows:

**§ 75.20 Initial certification and recertification procedures.**

(a) \* \* \*

(5) \* \* \*

(i) Until such time, date, and hour as the continuous emission monitoring system can be adjusted, repaired, or replaced and certification tests successfully completed (or, if the conditional data validation procedures in paragraphs (b)(3)(ii) through (b)(3)(ix) of this section are used, until a probationary calibration error test is passed following corrective actions in accordance with paragraph (b)(3)(ii) of this section), the owner or operator shall substitute the following values, as applicable, for each hour of unit operation during the period of invalid data specified in paragraph (a)(4)(iii) of this section or in § 75.21: the maximum potential concentration of SO<sub>2</sub>, as defined in section 2.1.1.1 of appendix A to this part, to report SO<sub>2</sub> concentration; the maximum potential NO<sub>x</sub> emission rate, as defined in § 72.2 of this chapter, to report NO<sub>x</sub> emissions in lb/mmBtu; the maximum potential concentration of NO<sub>x</sub>, as defined in section 2.1.2.1 of appendix A to this part, to report NO<sub>x</sub> emissions in ppm (when a NO<sub>x</sub> concentration monitoring system is used to determine NO<sub>x</sub> mass emissions, as defined under § 75.71(a)(2)); the maximum potential flow rate, as defined in section 2.1.4.1 of appendix A to this part, to report volumetric flow; the maximum potential concentration of CO<sub>2</sub>, as defined in section 2.1.3.1 of appendix A to this part, to report CO<sub>2</sub> concentration data; and either the minimum potential moisture percentage, as defined in section 2.1.5 of appendix A to this part or, if Equation 19-3, 19-4 or 19-8 in Method 19 in

appendix A to part 60 of this chapter is used to determine NO<sub>x</sub> emission rate, the maximum potential moisture percentage, as defined in section 2.1.6 of appendix A to this part; and

\* \* \* \* \*

(b) *Recertification approval process.* Whenever the owner or operator makes a replacement, modification, or change in a certified continuous emission monitoring system or continuous opacity monitoring system that may significantly affect the ability of the system to accurately measure or record the SO<sub>2</sub> or CO<sub>2</sub> concentration, stack gas volumetric flow rate, NO<sub>x</sub> emission rate, NO<sub>x</sub> concentration, percent moisture, or opacity, or to meet the requirements of § 75.21 or appendix B to this part, the owner or operator shall recertify the continuous emission monitoring system or continuous opacity monitoring system, according to the procedures in this paragraph. \* \* \*

\* \* \* \* \*

(c) \* \* \*

(1) For each SO<sub>2</sub> pollutant concentration monitor, each NO<sub>x</sub> concentration monitoring system used to determine NO<sub>x</sub> mass emissions, as defined under § 75.71(a)(2), and each NO<sub>x</sub>-diluent continuous emission monitoring system:

\* \* \* \* \*

(ii) A linearity check, where, for the NO<sub>x</sub>-diluent continuous emission monitoring system, the test is performed separately on the NO<sub>x</sub> pollutant concentration monitor and the diluent gas monitor;

(iii) A relative accuracy test audit. For the NO<sub>x</sub>-diluent continuous emission monitoring system, the RATA shall be done on a system basis, in units of lb/mmBtu. For the NO<sub>x</sub> concentration monitoring system, the RATA shall be done on a ppm basis;

\* \* \* \* \*

(9) [Reserved]

\* \* \* \* \*

- 11. Section 75.21 is amended by:
- a. Revising paragraph (a)(3); and
- b. Adding paragraphs (f) and (g), to read as follows:

**§ 75.21 Quality assurance and quality control requirements.**

(a) \* \* \*

(3) The owner or operator shall perform quality assurance upon a reference method backup monitoring system according to the requirements of Method 2, 6C, 7E, or 3A in Appendices A-1, A-2 and A-4 to part 60 of this chapter (supplemented, as necessary, by guidance from the Administrator),

instead of the procedures specified in appendix B to this part.

\* \* \* \* \*

(f) *Requirements for Air Emission Testing.* On and after March 27, 2012, relative accuracy testing under § 75.74(c)(2)(ii), section 6.5 of appendix A to this part, and section 2.3.1 of appendix B to this part, and stack testing under § 75.19 and section 2.1 of appendix E to this part shall be performed by an “Air Emission Testing Body”, as defined in § 72.2 of this chapter. Conformance to the requirements of ASTM D7036–04 (incorporated by reference, see § 75.6), referred to in section 6.1.2 of appendix A to this part, shall apply only to these tests. Section 1.1.4 of appendix B to this part, and section 2.1 of appendix E to this part require compliance with section 6.1.2 of appendix A to this part. Tests and activities under this part not required to be performed by an AETB as defined in § 72.2 of this chapter include daily CEMS operation, daily calibration error checks, daily flow interference checks, quarterly linearity checks, routine maintenance of CEMS, voluntary emissions testing, or emissions testing required under other regulations.

(g) *Requirements for EPA Protocol Gas Verification Program.* Any EPA Protocol gas production site that chooses to participate in the EPA Protocol Gas Verification Program (PGVP) must notify the Administrator of its intent to participate. An EPA Protocol gas production site’s participation shall commence immediately upon notification to EPA and shall extend through the end of the calendar year in which notification is provided. EPA will issue a vendor ID to each participating EPA Protocol gas production site. In each year of the PGVP, EPA may audit up to four EPA Protocol gas cylinders from each participating EPA Protocol gas production site.

(1) A production site participating in the PGVP shall provide the following information in its initial and ongoing notifications to EPA in an electronic format prescribed by the Administrator (see the CAMD Web site <http://www.epa.gov/airmarkets/emissions/pgvp.html>):

(i) The specialty gas company name which owns or operates the participating production site;

(ii) The name, e-mail address, and telephone number of a contact person for that specialty gas company;

(iii) The name and address of that participating EPA Protocol gas production site, owned or operated by the specialty gas company; and

(iv) The name, e-mail address, and telephone number of a contact person for that participating EPA Protocol gas production site.

(2) An EPA Protocol gas production site that elects to continue participating in the PGVP in the next calendar year must notify the Administrator of its intent to continue in the program by December 31 of the current year by submitting to EPA the information described in paragraph (g)(1) of this section.

(3) A list of the names, contact information, and vendor IDs of EPA Protocol gas production sites participating in the PGVP will be made publicly available by posting on EPA Web sites (see the CAMD Web site <http://www.epa.gov/airmarkets/emissions/pgvp.html>).

(4) EPA may remove an EPA Protocol gas production site from the list of PGVP participants and give notice to the production site for any of the following reasons:

(i) If the EPA Protocol gas production site fails to provide all of the information required by paragraph (g)(1) of this section in accordance with paragraph (g)(2) of this section;

(ii) If, after being notified that its EPA Protocol gas cylinders are being audited by EPA, the EPA Protocol gas production site fails to cancel its invoice or to credit the purchaser’s account for the cylinders within 45 calendar days of such notification; or

(iii) If, after being notified that its EPA Protocol gas cylinders are being audited by EPA, the EPA Protocol gas production site cannot provide to EPA upon demand proof of payment to the National Institute of Standards and Technology (NIST) and a valid contract with NIST;

(5) EPA may relist an EPA Protocol gas production site as follows:

(i) An EPA Protocol gas production site may be relisted immediately after its failure is remedied if the only reason for removal from the list of PGVP participants is failure to provide all of the information required by paragraph (g)(1) of this section;

(ii) If EPA does not receive hardcopy or electronic proof of a credit receipt or of cancellation of the invoice for the cylinders from the EPA Protocol gas production site within 45 calendar days of notifying the EPA Protocol gas production site that its cylinders are being audited by EPA, the cylinders shall be returned to the EPA Protocol gas production site free of any demurrage, and that EPA Protocol gas production site shall not be eligible for relisting for 180 calendar days from the date of notice that it was removed from

the list and until it submits to EPA the information required by paragraph (g)(1) of this section;

(iii) For any EPA Protocol gas production site which is notified by EPA that its cylinders are being audited and cannot provide to EPA upon demand proof of payment to NIST and a valid contract with NIST, the cylinders may either be kept by NIST or returned to the EPA Protocol gas production site free of any demurrage and at no cost to NIST, and that EPA Protocol gas production site shall not be eligible for relisting for 180 calendar days from the date of notice that it was removed from the list and until it submits to EPA the information required by paragraph (g)(1) of this section.

(6) On and after May 27, 2011 for each unit subject to this part that uses EPA Protocol gases, the owner or operator must obtain such gases from either an EPA Protocol gas production site that is on the EPA list of sites participating in the PGVP on the date the owner or operator procures such gases or from a reseller that sells to the owner or operator unaltered EPA Protocol gases produced by an EPA Protocol gas production site that was on the EPA list of participating sites on the date the reseller procured such gases.

(7) An EPA Protocol gas cylinder certified by or ordered from any non-participating EPA Protocol gas production site no later than May 27, 2011 may be used for the purposes of this part until the earlier of the cylinder’s expiration date or the date on which the cylinder gas pressure reaches 150 psig. In the event that an EPA Protocol gas production site is removed from the list of PGVP participants on the same date as or after the date on which a particular cylinder has been certified or ordered, that gas cylinder may continue to be used for the purposes of this part until the earlier of the cylinder’s expiration date or the date on which the cylinder gas pressure reaches 150 psig. However, in no case shall a cylinder described in this paragraph (g)(7) be recertified by a non-participating EPA Protocol gas production site to extend its useful life and be used by a source subject to this part.

(8) If EPA notifies a participating EPA Protocol gas production site that its EPA Protocol gas cylinders are being audited and identifies the purchaser as an EPA representative or contractor participating in the audit process, the production site shall:

(i) Either cancel that purchaser’s invoice or credit that purchaser’s account for the purchase of those EPA Protocol gas cylinders;

(ii) Not charge for demurrage for those EPA Protocol gas cylinders;

(iii) Arrange for and pay for the return shipment of its cylinders from NIST; and

(iv) Provide sufficient funding to NIST for:

(A) The analysis of those EPA Protocol gas cylinders by NIST;

(B) The production site's pro rata share of draft and final NIST electronic audit reports as specified in paragraphs (g)(9)(ii) through (g)(9)(v) of this section on all cylinders in the current audit; and

(C) The full cost of a draft redacted electronic audit report containing just that production site's results and the information as specified in paragraphs (g)(9)(ii) through (g)(9)(v) of this section;

(9) If EPA notifies a participating EPA Protocol gas production site that its EPA Protocol gas cylinders are being audited then:

(i) Each participating EPA Protocol gas production site must have NIST analyze its EPA Protocol gas cylinders provided for audit as soon after NIST receives the batch containing those cylinders as possible, preferably within two weeks of NIST's receipt, using analytical procedures consistent with metrology institute practices and at least as rigorous as the "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards" (Traceability Protocol), September 1997, as amended August 25, 1999, EPA-600/R-97/121, (incorporated by reference, see § 75.6) or equivalent written cylinder analysis protocol that has been approved by EPA.

(ii) Each cylinder's concentration must be determined by NIST and the results compared to each cylinder's certification documentation and tag value to establish conformance with section 5.1 of appendix A to this part. After NIST analysis, each cylinder must be provided with a NIST analyzed concentration with an expanded uncertainty, as defined in § 72.2, (coverage factor, as defined in § 72.2, k=2) of plus or minus 1.0 percent (calculated combined standard uncertainty of plus or minus 0.5%), inclusive, or better, unless otherwise approved by EPA.

(iii) The certification documentation accompanying each cylinder must be verified in the audit report as meeting the requirements of "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards," September 1997, as amended August 25, 1999, EPA-600/R-97/121 (incorporated by reference, see § 75.6) or a revised procedure approved by the Administrator.

(iv) Each participating EPA Protocol gas production site shall have NIST provide all of the information required by paragraphs (g)(9)(ii) through (g)(9)(v) of this section in draft and final electronic audit reports on all cylinders in the current audit, and in a draft redacted electronic audit report containing just that production site's information. The draft audit report on all cylinders in the current audit and each draft redacted version of the audit report shall be submitted electronically by NIST to *pgvp@epa.gov*, unless otherwise provided by the Administrator, within four weeks of completion of all cylinder analyses or as soon as possible thereafter. The draft and final audit report on all cylinders in the current audit shall only be sent to EPA. EPA will send the applicable draft redacted audit report to each participating production site for comment. To be considered in the final posted audit report, EPA must receive comments, and any cylinder re-analyses from participating EPA Protocol gas production sites within 60 days of the participating EPA Protocol gas production site's receipt of the draft redacted audit report. All comments from production sites, including any cylinder re-analyses, on the draft redacted versions of the audit report shall be submitted electronically to *pgvp@epa.gov*, unless otherwise provided by the Administrator. The final audit report on all cylinders in the current audit shall be submitted electronically by NIST to *pgvp@epa.gov*, unless otherwise provided by the Administrator, within 90 days of the participating EPA Protocol gas production site's receipt of the draft redacted audit report sent by EPA or as soon as possible thereafter. EPA will post the final results of the NIST analyses on EPA Web sites (see the CAMD Web site <http://www.epa.gov/airmarkets/emissions/pgvp.html>). Each audit report shall include:

(A) A table with the information and in the format specified by Figure 3 (or the Note below Figure 3, as applicable) of appendix B to this part or such revised format as approved by the Administrator; and

(B) Complete documentation of the NIST procedures used to analyze the cylinders, including the analytical reference standards, analytical method, analytical method uncertainty, analytical instrumentation, and instrument calibration procedures.

(v) For EPA Protocol gas production sites that produce EPA Protocol gas cylinders claiming NIST traceability for both NO and NO<sub>x</sub> concentrations in the same cylinder, if analyzed by NIST for

the PGVP, such cylinders must be analyzed by NIST for both the NO and NO<sub>x</sub> components (where total NO<sub>x</sub> is determined by NO plus NO<sub>2</sub>) and the results of the analyses shall be included in the audit report.

(10) An EPA Protocol gas production site shall continue to be on the EPA list of sites participating in the PGVP and may continue to sell EPA Protocol gases to sources subject to part 75 if it is not notified by EPA that its cylinders are being audited under the PGVP if it provides the information described in paragraph (g)(1) of this section in accordance with paragraph (g)(2) of this section.

(11) The data validation procedures under §§ 2.1.4, 2.2.3, and 2.3.2 of appendix B to this part apply.

- 12. Section 75.22 is amended by:
- a. Revising paragraph (a) introductory text;
- b. Revising paragraph (a)(5)(iv);
- c. Adding paragraph (a)(5)(v)
- d. Removing paragraph (a)(7);
- e. Revising paragraph (b) introductory text; and
- f. Removing paragraphs (b)(5) through (b)(8), to read as follows:

**§ 75.22 Reference test methods.**

(a) The owner or operator shall use the following methods, which are found in appendices A-1 through A-4 to part 60 of this chapter, to conduct the following tests: Monitoring system tests for certification or recertification of continuous emission monitoring Systems; NO<sub>x</sub> emission tests of low mass emission units under § 75.19(c)(1)(iv); NO<sub>x</sub> emission tests of excepted monitoring systems under appendix E to this part; and required quality assurance and quality control tests:

\* \* \* \* \*

(5) \* \* \*

(iv) Section 8.6 of the method allowing for the use of "Dynamic Spiking" as an alternative to the interference and system bias checks of the method. Dynamic spiking may be conducted (optionally) as an additional quality assurance check; and

(v) That portion of Section 8.5 of the method allowing multiple sampling runs to be conducted before performing the post-run system bias check or system calibration error check.

\* \* \* \* \*

(b) The owner or operator may use any of the following methods, which are found in appendices A-1 through A-4 to part 60 of this chapter, as a reference method backup monitoring system to provide quality-assured monitor data:

\* \* \* \* \*

■ 13. Section 75.24 is amended by revising paragraph (d) to read as follows:

**§ 75.24 Out-of-control periods and adjustment for system bias.**

\* \* \* \* \*

(d) When the bias test indicates that an SO<sub>2</sub> monitor, a flow monitor, a NO<sub>x</sub>-diluent continuous emission monitoring system, or a NO<sub>x</sub> concentration monitoring system used to determine NO<sub>x</sub> mass emissions, as defined in § 75.71(a)(2), is biased low (*i.e.*, the arithmetic mean of the differences between the reference method value and the monitor or monitoring system measurements in a relative accuracy test audit exceed the bias statistic in section 7 of appendix A to this part), the owner or operator shall adjust the monitor or continuous emission monitoring system to eliminate the cause of bias such that it passes the bias test or calculate and use the bias adjustment factor as specified in section 2.3.4 of appendix B to this part.

\* \* \* \* \*

■ 14. Section 75.31 is amended by revising paragraphs (a) and (b) to read as follows:

**§ 75.31 Initial missing data procedures.**

(a) During the first 720 quality-assured monitor operating hours following initial certification of the required SO<sub>2</sub>, CO<sub>2</sub>, O<sub>2</sub>, or moisture monitoring system(s) at a particular unit or stack location (*i.e.*, the date and time at which quality assured data begins to be recorded by CEMS(s) installed at that location), and during the first 2,160 quality assured monitor operating hours following initial certification of the required NO<sub>x</sub>-diluent, NO<sub>x</sub>

concentration, or flow monitoring system(s) at the unit or stack location, the owner or operator shall provide substitute data required under this subpart according to the procedures in paragraphs (b) and (c) of this section. The owner or operator of a unit shall use these procedures for no longer than three years (26,280 clock hours) following initial certification.

(b) SO<sub>2</sub>, CO<sub>2</sub>, or O<sub>2</sub> concentration data, and moisture data. For each hour of missing SO<sub>2</sub> or CO<sub>2</sub> emissions concentration data (including CO<sub>2</sub> data converted from O<sub>2</sub> data using the procedures in appendix F of this part), or missing O<sub>2</sub> or CO<sub>2</sub> diluent concentration data used to calculate heat input, or missing moisture data, the owner or operator shall calculate the substitute data as follows:

(1) Whenever prior quality-assured data exist, the owner or operator shall substitute, by means of the data acquisition and handling system, for each hour of missing data, the average of the hourly SO<sub>2</sub>, CO<sub>2</sub>, or O<sub>2</sub> concentrations or moisture percentages recorded by a certified monitor for the unit operating hour immediately before and the unit operating hour immediately after the missing data period.

(2) Whenever no prior quality assured SO<sub>2</sub>, CO<sub>2</sub>, or O<sub>2</sub> concentration data or moisture data exist, the owner or operator shall substitute, as applicable, for each hour of missing data, the maximum potential SO<sub>2</sub> concentration or the maximum potential CO<sub>2</sub> concentration or the minimum potential O<sub>2</sub> concentration or (unless Equation 19-3, 19-4 or 19-8 in Method 19 in appendix A-7 to part 60 of this chapter is used to determine NO<sub>x</sub> emission rate)

the minimum potential moisture percentage, as specified, respectively, in sections 2.1.1.1, 2.1.3.1, 2.1.3.2 and 2.1.5 of appendix A to this part. If Equation 19-3, 19-4 or 19-8 in Method 19 in appendix A-7 to part 60 of this chapter is used to determine NO<sub>x</sub> emission rate, substitute the maximum potential moisture percentage, as specified in section 2.1.6 of appendix A to this part.

\* \* \* \* \*

■ 15. Section 75.32 is amended by revising the first sentence of paragraph (a) introductory text, to read as follows:

**§ 75.32 Determination of monitor data availability for standard missing data procedures.**

(a) Following initial certification of the required SO<sub>2</sub>, CO<sub>2</sub>, O<sub>2</sub>, or moisture monitoring system(s) at a particular unit or stack location (*i.e.*, the date and time at which quality assured data begins to be recorded by CEMS(s) at that location), the owner or operator shall begin calculating the percent monitor data availability as described in paragraph (a)(1) of this section, and shall, upon completion of the first 720 quality-assured monitor operating hours, record, by means of the automated data acquisition and handling system, the percent monitor data availability for each monitored parameter.\* \* \*

\* \* \* \* \*

■ 16. Section 75.33 is amended by:  
 ■ a. Revising the section heading; and  
 ■ b. Revising Table 1 and the footnotes below Table 1, to read as follows:

**§ 75.33 Standard missing data procedures for SO<sub>2</sub>, NO<sub>x</sub>, and flow rate.**

\* \* \* \* \*

TABLE 1—MISSING DATA PROCEDURE FOR SO<sub>2</sub> CEMS, CO<sub>2</sub> CEMS, MOISTURE CEMS, AND DILUENT (CO<sub>2</sub> OR O<sub>2</sub>) MONITORS FOR HEAT INPUT DETERMINATION

Trigger conditions		Calculation routines	
Monitor data availability (percent)	Duration (N) of CEMS outage (hours) <sup>2</sup>	Method	Lookback period
95 or more .....	N ≤ 24	Average .....	HB/HA.
	N > 24	For SO <sub>2</sub> , CO <sub>2</sub> , and H <sub>2</sub> O**, the greater of: Average .....	HB/HA. 720 hours.*
90 or more, but below 95 .....	N ≤ 8	90th percentile .....	HB/HA. 720 hours.*
	N > 8	For O <sub>2</sub> and H <sub>2</sub> O <sup>x</sup> , the lesser of: 10th percentile .....	HB/HA.
80 or more, but below 90 .....	N > 0	Average .....	HB/HA. 720 hours.*
		For SO <sub>2</sub> , CO <sub>2</sub> , and H <sub>2</sub> O**, the greater of: Average .....	HB/HA. 720 hours.*
		95th percentile .....	HB/HA. 720 hours.*
		For O <sub>2</sub> and H <sub>2</sub> O <sup>x</sup> , the lesser of: Average .....	HB/HA. 720 hours.*
		5th Percentile .....	HB/HA. 720 hours.*
		For SO <sub>2</sub> , CO <sub>2</sub> , and H <sub>2</sub> O**, Maximum value <sup>1</sup> .....	720 hours.*
		For O <sub>2</sub> and H <sub>2</sub> O <sup>x</sup> :	

TABLE 1—MISSING DATA PROCEDURE FOR SO<sub>2</sub> CEMS, CO<sub>2</sub> CEMS, MOISTURE CEMS, AND DILUENT (CO<sub>2</sub> OR O<sub>2</sub>) MONITORS FOR HEAT INPUT DETERMINATION—Continued

Trigger conditions		Calculation routines	
Monitor data availability (percent)	Duration (N) of CEMS outage (hours) <sup>2</sup>	Method	Lookback period
Below 80 .....	N > 0	Minimum value <sup>1</sup> ..... Maximum potential concentration <sup>3</sup> or % (for SO <sub>2</sub> , CO <sub>2</sub> , and H <sub>2</sub> O**) or Minimum potential concentration or % (for O <sub>2</sub> and H <sub>2</sub> O <sup>x</sup> ).	720 hours.*  None.

HB/HA = hour before and hour after the CEMS outage.

\*Quality-assured, monitor operating hours, during unit operation. May be either fuel-specific or non-fuel-specific. For units that report data only for the ozone season, include only quality assured monitor operating hours within the ozone season in the lookback period. Use data from no earlier than 3 years prior to the missing data period.

<sup>1</sup>Where a unit with add-on SO<sub>2</sub> emission controls can demonstrate that the controls are operating properly during the missing data period, as provided in § 75.34, the unit may use the maximum controlled concentration from the previous 720 quality-assured monitor operating hours.

<sup>2</sup>During unit operating hours.

<sup>3</sup>Where a unit with add-on SO<sub>2</sub> emission controls can demonstrate that the controls are operating properly during the missing data period, the unit may report the greater of: (a) the maximum expected SO<sub>2</sub> concentration or (b) 1.25 times the maximum controlled value from the previous 720 quality-assured monitor operating hours (see § 75.34).

<sup>x</sup>Use this algorithm for moisture except when Equation 19–3, 19–4 or 19–8 in Method 19 in appendix A–7 to part 60 of this chapter is used for NO<sub>x</sub> emission rate.

\*\*Use this algorithm for moisture *only* when Equation 19–3, 19–4 or 19–8 in Method 19 in appendix A–7 to part 60 of this chapter is used for NO<sub>x</sub> emission rate.

\* \* \* \* \*

■ 17. Section 75.34 is amended by:

- a. Revising paragraph (a)(2)(ii); and
- b. Revising the first sentence of paragraph (d), to read as follows:

**§ 75.34 Units with add-on emission controls.**

- (a) \* \* \*
- (2) \* \* \*

(ii) For the purposes of the missing data lookback periods described under §§ 75.33 (c)(1), (c)(2), (c)(3) and (c)(5) of this section, the substitute data values shall be taken from the appropriate database, depending on the date(s) and hour(s) of the missing data period. That is, if the missing data period occurs inside the ozone season, the ozone season data shall be used to provide substitute data. If the missing data period occurs outside the ozone season, data from outside the ozone season shall be used to provide substitute data.

\* \* \* \* \*

(d) In order to implement the options in paragraphs (a)(1), (a)(3) and (a)(5) of this section; and §§ 75.31(c)(3) and 75.72(c)(3), the owner or operator shall keep records of information as described in § 75.58(b)(3) to verify the proper operation of all add-on SO<sub>2</sub> or NO<sub>x</sub> emission controls, during all periods of SO<sub>2</sub> or NO<sub>x</sub> emission missing data.

\* \* \*

**§§ 75.38–75.39 [Removed and reserved]**

- 18. Sections 75.38 and 75.39 are removed and reserved.
- 19. Section 75.47 is amended by:
  - a. Revising paragraph (b)(2); and

- b. Removing paragraphs (b)(3) and (c), to read as follows:

**§ 75.47 Criteria for a class of affected units.**

\* \* \* \* \*

(b) \* \* \*

(2) A description of the class of affected units, including data describing all of the affected units that will comprise the class.

■ 20. Section 75.53 is amended by:

- a. Revising paragraphs (e)(1)(i)(E), (e)(1)(iv) introductory text, (e)(1)(x), (g)(1)(i)(A), (g)(1)(i)(C), (g)(1)(i)(E), (g)(1)(i)(F), (g)(1)(iii) introductory text, (g)(1)(v)(F), (g)(1)(v)(G), (g)(1)(vi)(H), and (g)(1)(vi)(I);
- b. Adding paragraph (g)(1)(vi)(J); and
- c. Revising paragraphs (h)(2)(i) and (h)(5), to read as follows:

**§ 75.53 Monitoring plan.**

\* \* \* \* \*

(e) \* \* \*

(1) \* \* \*

(i) \* \* \*

(E) Type(s) of emission controls for SO<sub>2</sub>, NO<sub>x</sub>, and particulates installed or to be installed, including specifications of whether such controls are pre-combustion, post-combustion, or integral to the combustion process; control equipment code, installation date, and optimization date; control equipment retirement date (if applicable); primary/secondary controls indicator; and an indicator for whether the controls are an original installation;

\* \* \* \* \*

(iv) Identification and description of each monitoring system component (including each monitor and its

identifiable components, such as analyzer and/or probe) in the CEMS (e.g., SO<sub>2</sub> pollutant concentration monitor, flow monitor, moisture monitor; NO<sub>x</sub> pollutant concentration monitor, and diluent gas monitor), the continuous opacity monitoring system, or the excepted monitoring system (e.g., fuel flowmeter, data acquisition and handling system), including:

\* \* \* \* \*

(x) For each parameter monitored: Scale, maximum potential concentration (and method of calculation), maximum expected concentration (if applicable) (and method of calculation), maximum potential flow rate (and method of calculation), maximum potential NO<sub>x</sub> emission rate, span value, full-scale range, daily calibration units of measure, span effective date/hour, span inactivation date/hour, indication of whether dual spans are required, default high range value, flow rate span, and flow rate span value and full scale value (in scfh) for each unit or stack using SO<sub>2</sub>, NO<sub>x</sub>, CO<sub>2</sub>, O<sub>2</sub>, or flow component monitors.

\* \* \* \* \*

(g) \* \* \*

(1) \* \* \*

(i) \* \* \*

(A) A representation of the exhaust configuration for the units in the monitoring plan. On and after April 27, 2011, provide the activation date and deactivation date (if applicable) of the configuration. Provide the ID number of each unit and assign a unique ID number to each common stack, common pipe multiple stack and/or multiple pipe associated with the unit(s)

represented in the monitoring plan. For common and multiple stacks and/or pipes, provide the activation date and deactivation date (if applicable) of each stack and/or pipe;

\* \* \* \* \*

(C) The stack exit height (ft) above ground level and ground level elevation above sea level, and the inside cross-sectional area (ft<sup>2</sup>) at the flue exit and at the flow monitoring location (for units with flow monitors, only). Also use appropriate codes to indicate the material(s) of construction and the shape(s) of the stack or duct cross-section(s) at the flue exit and (if applicable) at the flow monitor location. On and after April 27, 2011, provide the activation date and deactivation date (if applicable) for the information in this paragraph (g)(1)(i)(C);

\* \* \* \* \*

(E) The type(s) of emission controls that are used to reduce SO<sub>2</sub>, NO<sub>x</sub>, and particulate emissions from each unit. Also provide the installation date, optimization date, and retirement date (if applicable) of the emission controls, and indicate whether the controls are an original installation;

(F) Maximum hourly heat input capacity of each unit. On and after April 27, 2011, provide the activation date and deactivation date (if applicable) for this parameter; and

\* \* \* \* \*

(iii) For each required continuous emission monitoring system, each fuel flowmeter system, and each continuous opacity monitoring system, identify and describe the major monitoring components in the monitoring system (e.g., gas analyzer, flow monitor, opacity monitor, moisture sensor, fuel flowmeter, DAHS software, etc.). Other important components in the system

(e.g., sample probe, PLC, data logger, etc.) may also be represented in the monitoring plan, if necessary. Provide the following specific information about each component and monitoring system:

\* \* \* \* \*

(v) \* \* \*

(F) Effective date/hour, and (if applicable) inactivation date/hour of each span value. On and after April 27, 2011, provide the activation date and deactivation date (if applicable) for the measurement scale and dual span information in paragraphs (g)(1)(v)(A), (g)(1)(v)(G), and (g)(1)(v)(H) of this section;

(G) An indication of whether dual spans are required. If two span values are required, then, on and after April 27, 2011, indicate whether an autoranging analyzer is used to represent the two measurement scales; and

\* \* \* \* \*

(vi) \* \* \*

(H) Date and hour that the value is no longer effective (if applicable);

(I) For units using the excepted methodology under § 75.19, the applicable SO<sub>2</sub> emission factor; and

(J) On and after April 27, 2011, group identification code.

\* \* \* \* \*

(h) \* \* \*

(2) \* \* \*

(i) *Electronic*. Unit operating and capacity factor information demonstrating that the unit qualifies as a peaking unit, as defined in § 72.2 of this chapter for the current calendar year or ozone season, including: capacity factor data for three calendar years (or ozone seasons) as specified in the definition of peaking unit in § 72.2 of this chapter; the method of qualification used; and an indication of whether the data are actual or projected

data. On and after April 27, 2011, provide the activation date and deactivation date (if applicable) for the peaking unit qualification information in this paragraph (h)(2)(i).

\* \* \* \* \*

(5) For qualification as a gas-fired unit, as defined in § 72.2 of this part, the designated representative shall include in the monitoring plan, in electronic format, the following: current calendar year, fuel usage data for three calendar years (or ozone seasons) as specified in the definition of gas-fired in § 72.2 of this chapter, the method of qualification used, and an indication of whether the data are actual or projected data. On and after April 27, 2011, provide the activation date and deactivation date (if applicable) for the gas-fired unit qualification information in this paragraph (h)(5).

\* \* \* \* \*

- 21. Section 75.57 is amended by:
- a. Revising paragraph (a)(5);
- b. Revising paragraph (a)(6);
- c. Adding paragraph (a)(7);
- d. Revising Table 4a; and
- e. Removing paragraphs (i) and (j), to read as follows:

**§ 75.57 General recordkeeping provisions.**

\* \* \* \* \*

(a) \* \* \*

(5) The current monitoring plan as specified in § 75.53, beginning with the initial submission required by § 75.62;

(6) The quality control plan as described in section 1 of appendix B to this part, beginning with the date of provisional certification; and

(7) The information required by sections 6.1.2(b) and (c) of appendix A to this part.

\* \* \* \* \*

TABLE 4A—CODES FOR METHOD OF EMISSIONS AND FLOW DETERMINATION

Code	Hourly emissions/flow measurement or estimation method
1 .....	Certified primary emission/flow monitoring system.
2 .....	Certified backup emission/flow monitoring system.
3 .....	Approved alternative monitoring system.
4 .....	Reference method: SO <sub>2</sub> : Method 6C. Flow: Method 2 or its allowable alternatives under appendix A to part 60 of this chapter. NO <sub>x</sub> : Method 7E. CO <sub>2</sub> or O <sub>2</sub> : Method 3A.
5 .....	For units with add-on SO <sub>2</sub> and/or NO <sub>x</sub> emission controls: SO <sub>2</sub> concentration or NO <sub>x</sub> emission rate estimate from Agency preapproved parametric monitoring method.
6 .....	Average of the hourly SO <sub>2</sub> concentrations, CO <sub>2</sub> concentrations, O <sub>2</sub> concentrations, NO <sub>x</sub> concentrations, flow rates, moisture percentages or NO <sub>x</sub> emission rates for the hour before and the hour following a missing data period.
7 .....	Initial missing data procedures used. Either: (a) the average of the hourly SO <sub>2</sub> concentration, CO <sub>2</sub> concentration, O <sub>2</sub> concentration, or moisture percentage for the hour before and the hour following a missing data period; or (b) the arithmetic average of all NO <sub>x</sub> concentration, NO <sub>x</sub> emission rate, or flow rate values at the corresponding load range (or a higher load range), or at the corresponding operational bin (non-load-based units, only); or (c) the arithmetic average of all previous NO <sub>x</sub> concentration, NO <sub>x</sub> emission rate, or flow rate values (non-load-based units, only).

TABLE 4A—CODES FOR METHOD OF EMISSIONS AND FLOW DETERMINATION—Continued

Code	Hourly emissions/flow measurement or estimation method
8 .....	90th percentile hourly SO <sub>2</sub> concentration, CO <sub>2</sub> concentration, NO <sub>x</sub> concentration, flow rate, moisture percentage, or NO <sub>x</sub> emission rate or 10th percentile hourly O <sub>2</sub> concentration or moisture percentage in the applicable lookback period (moisture missing data algorithm depends on which equations are used for emissions and heat input).
9 .....	95th percentile hourly SO <sub>2</sub> concentration, CO <sub>2</sub> concentration, NO <sub>x</sub> concentration, flow rate, moisture percentage, or NO <sub>x</sub> emission rate or 5th percentile hourly O <sub>2</sub> concentration or moisture percentage in the applicable lookback period (moisture missing data algorithm depends on which equations are used for emissions and heat input).
10 .....	Maximum hourly SO <sub>2</sub> concentration, CO <sub>2</sub> concentration, NO <sub>x</sub> concentration, flow rate, moisture percentage, or NO <sub>x</sub> emission rate or minimum hourly O <sub>2</sub> concentration or moisture percentage in the applicable lookback period (moisture missing data algorithm depends on which equations are used for emissions and heat input).
11 .....	Average of hourly flow rates, NO <sub>x</sub> concentrations or NO <sub>x</sub> emission rates in corresponding load range, for the applicable lookback period. For non-load-based units, report either the average flow rate, NO <sub>x</sub> concentration or NO <sub>x</sub> emission rate in the applicable lookback period, or the average flow rate or NO <sub>x</sub> value at the corresponding operational bin (if operational bins are used).
12 .....	Maximum potential concentration of SO <sub>2</sub> , maximum potential concentration of CO <sub>2</sub> , maximum potential concentration of NO <sub>x</sub> maximum potential flow rate, maximum potential NO <sub>x</sub> emission rate, maximum potential moisture percentage, minimum potential O <sub>2</sub> concentration or minimum potential moisture percentage, as determined using § 72.2 of this chapter and section 2.1 of appendix A to this part (moisture missing data algorithm depends on which equations are used for emissions and heat input).
13 .....	Maximum expected concentration of SO <sub>2</sub> , maximum expected concentration of NO <sub>x</sub> , or maximum controlled NO <sub>x</sub> emission rate. (See § 75.34(a)(5)).
14 .....	Diluent cap value (if the cap is replacing a CO <sub>2</sub> measurement, use 5.0 percent for boilers and 1.0 percent for turbines; if it is replacing an O <sub>2</sub> measurement, use 14.0 percent for boilers and 19.0 percent for turbines).
15 .....	1.25 times the maximum hourly controlled SO <sub>2</sub> concentration, NO <sub>x</sub> concentration at the corresponding load or operational bin, or NO <sub>x</sub> emission rate at the corresponding load or operational bin, in the applicable lookback period (See § 75.34(a)(5)).
16 .....	SO <sub>2</sub> concentration value of 2.0 ppm during hours when only “very low sulfur fuel”, as defined in § 72.2 of this chapter, is combusted.
17 .....	Like-kind replacement non-redundant backup analyzer.
19 .....	200 percent of the MPC; default high range value.
20 .....	200 percent of the full-scale range setting (full-scale exceedance of high range).
21 .....	Negative hourly CO <sub>2</sub> concentration, SO <sub>2</sub> concentration, NO <sub>x</sub> concentration, percent moisture, or NO <sub>x</sub> emission rate replaced with zero.
22 .....	Hourly average SO <sub>2</sub> or NO <sub>x</sub> concentration, measured by a certified monitor at the control device inlet (units with add-on emission controls only).
23 .....	Maximum potential SO <sub>2</sub> concentration, NO <sub>x</sub> concentration, CO <sub>2</sub> concentration, or NO <sub>x</sub> emission rate, or minimum potential O <sub>2</sub> concentration or moisture percentage, for an hour in which flue gases are discharged through an unmonitored bypass stack.
24 .....	Maximum expected NO <sub>x</sub> concentration, or maximum controlled NO <sub>x</sub> emission rate for an hour in which flue gases are discharged downstream of the NO <sub>x</sub> emission controls through an unmonitored bypass stack, and the add-on NO <sub>x</sub> emission controls are confirmed to be operating properly.
25 .....	Maximum potential NO <sub>x</sub> emission rate (MER). (Use only when a NO <sub>x</sub> concentration full-scale exceedance occurs and the diluent monitor is unavailable.)
26 .....	1.0 mmBtu/hr substituted for Heat Input Rate for an operating hour in which the calculated Heat Input Rate is zero or negative.
40 .....	Fuel specific default value (or prorated default value) used for the hour.
53 .....	Other quality-assured data approved through petition. These are treated as available hours for percent monitor availability calculations and are included in missing data lookback.
54 .....	Other quality assured methodologies approved through petition. These hours are included in missing data lookback and are treated as unavailable hours for percent monitor availability calculations.
55 .....	Other substitute data approved through petition. These hours are not included in missing data lookback and are treated as unavailable hours for percent monitor availability calculations.

- \* \* \* \* \*
- 22. Section 75.58 is amended by:
- a. Revising paragraphs (b)(3) and (d)(4)(ii); and
- b. Adding paragraph (d)(4)(iii), to read as follows:

**§ 75.58 General recordkeeping provisions for specific situations.**

\* \* \* \* \*

(b) \* \* \*

(3) Except as otherwise provided in § 75.34(d), for units with add-on SO<sub>2</sub> or NO<sub>x</sub> emission controls following the provisions of §§ 75.34(a)(1), (a)(2), (a)(3) or (a)(5), the owner or operator shall record:

- (i) Parametric data which demonstrate, for each hour of missing SO<sub>2</sub> or NO<sub>x</sub> emission data, the proper operation of the add-on emission controls, as described in the quality assurance/quality control program for the unit. The parametric data shall be maintained on site and shall be submitted, upon request, to the Administrator, EPA Regional office, State, or local agency;
- (ii) A flag indicating, for each hour of missing SO<sub>2</sub> or NO<sub>x</sub> emission data, either that the add-on emission controls are operating properly, as evidenced by all parameters being within the ranges specified in the quality assurance/

quality control program, or that the add-on emission controls are not operating properly.

\* \* \* \* \*

(d) \* \* \*

(4) \* \* \*

(ii) For boilers, hourly average boiler O<sub>2</sub> reading (percent, rounded to the nearest tenth) (flag if value exceeds by more than 2 percentage points the O<sub>2</sub> level recorded at the same heat input during the previous NO<sub>x</sub> emission rate test); and

(iii) On and after April 27, 2011, operating condition codes for the following:

- (A) Unit operated on emergency fuel;

- (B) Correlation curve for the fuel mixture has expired;
- (C) Operating parameter is outside of normal limits;
- (D) Uncontrolled hour;
- (E) Operation above highest tested heat input rate point on the curve;
- (F) Operating parameter data missing or invalid;
- (G) Designated operational and control equipment parameters within normal limits; and
- (H) Operation below lowest tested heat input rate point on the curve.

■ 23. Section 75.59 is amended by:

- a. Revising paragraph (a)(1) introductory text;
- b. Revising paragraph (a)(1)(iii);
- c. Revising paragraphs (a)(3) introductory text, (a)(5) introductory text, and (a)(5)(ii) introductory text;
- d. Revising paragraph (a)(5)(ii)(L);
- e. Revising paragraphs (a)(5)(iii)(F) and (G);
- f. Adding paragraph (a)(5)(iii)(H);
- g. Revising paragraph (a)(6) introductory text;
- h. Removing and reserving paragraph (a)(7)(vii);
- i. Removing the heading of reserved paragraph (a)(7)(viii);
- j. Removing paragraph (a)(7)(x);
- k. Revising paragraph (a)(9) introductory text;
- l. Revising paragraph (a)(9)(vi);
- m. Adding paragraphs (a)(9)(x) and (xi);
- n. Revising paragraphs (a)(12)(iv)(E) and (F);
- o. Adding paragraph (a)(12)(iv)(G);
- p. Removing and reserving paragraph (a)(14);
- q. Adding paragraph (a)(15);
- r. Adding paragraph (b)(6);
- s. Revising paragraph (c) introductory text;
- t. Revising paragraphs (d)(3)(x) and (xi);
- u. Adding paragraphs (d)(3)(xii) and (xiii);
- v. Adding paragraph (d)(4);
- w. Removing paragraph (e); and
- x. Redesignating paragraph (f) as paragraph (e), to read as follows:

**§ 75.59 Certification, quality assurance, and quality control record provisions.**

- (a) \* \* \*
- (1) For each SO<sub>2</sub> or NO<sub>x</sub> pollutant concentration monitor, flow monitor, CO<sub>2</sub> emissions concentration monitor (including O<sub>2</sub> monitors used to determine CO<sub>2</sub> emissions), or diluent gas monitor (including wet- and dry-basis O<sub>2</sub> monitors used to determine percent moisture), the owner or operator shall record the following for all daily

and 7-day calibration error tests, and all off-line calibration demonstrations, including any follow-up tests after corrective action:

- \* \* \* \* \*
- (iii) On and after April 27, 2011, date, hour, and minute;
- \* \* \* \* \*

(3) For each SO<sub>2</sub> or NO<sub>x</sub> pollutant concentration monitor, CO<sub>2</sub> emissions concentration monitor (including O<sub>2</sub> monitors used to determine CO<sub>2</sub> emissions), or diluent gas monitor (including wet- and dry-basis O<sub>2</sub> monitors used to determine percent moisture), the owner or operator shall record the following for the initial and all subsequent linearity check(s), including any follow-up tests after corrective action.

\* \* \* \* \*

(5) For each SO<sub>2</sub> pollutant concentration monitor, flow monitor, each CO<sub>2</sub> emissions concentration monitor (including any O<sub>2</sub> concentration monitor used to determine CO<sub>2</sub> mass emissions or heat input), each NO<sub>x</sub>-diluent continuous emission monitoring system, each NO<sub>x</sub> concentration monitoring system, each diluent gas (O<sub>2</sub> or CO<sub>2</sub>) monitor used to determine heat input, each moisture monitoring system, and each approved alternative monitoring system, the owner or operator shall record the following information for the initial and all subsequent relative accuracy test audits:

\* \* \* \* \*

(ii) Individual test run data from the relative accuracy test audit for the SO<sub>2</sub> concentration monitor, flow monitor, CO<sub>2</sub> emissions concentration monitor, NO<sub>x</sub>-diluent continuous emission monitoring system, diluent gas (O<sub>2</sub> or CO<sub>2</sub>) monitor used to determine heat input, NO<sub>x</sub> concentration monitoring system, moisture monitoring system, or approved alternative monitoring system, including:

\* \* \* \* \*

(L) Average gross unit load, expressed as a total gross unit load, rounded to the nearest MWe, or as steam load, rounded to the nearest thousand lb/hr; on and after April 27, 2011, for units that do not produce electrical or thermal output, record, instead, the average stack gas velocity at the operating level being tested; and

\* \* \* \* \*

(iii) \* \* \*

(F) Bias test results as specified in section 7.6.4 of appendix A to this part;

(G) Bias adjustment factor from Equation A-12 in appendix A to this part for any monitoring system that

failed the bias test (except as otherwise provided in section 7.6.5 of appendix A to this part) and 1.000 for any monitoring system that passed the bias test; and

(H) On and after April 27, 2011, RATA frequency code.

\* \* \* \* \*

(6) For each SO<sub>2</sub>, NO<sub>x</sub>, or CO<sub>2</sub> pollutant concentration monitor, each component of a NO<sub>x</sub>-diluent continuous emission monitoring system, and each CO<sub>2</sub> or O<sub>2</sub> monitor used to determine heat input, the owner or operator shall record the following information for the cycle time test:

\* \* \* \* \*

- (7) \* \* \*
- (vii) [Reserved]
- (viii) [Reserved]

\* \* \* \* \*

(9) When hardcopy relative accuracy test reports, certification reports, recertification reports, or semiannual or annual reports for gas or flow rate CEMS are required or requested under § 75.60(b)(6) or § 75.63, the reports shall include, at a minimum, the following elements (as applicable to the type(s) of test(s) performed):

\* \* \* \* \*

(vi) Laboratory calibrations of the source sampling equipment.

\* \* \* \* \*

(x) For testing involving use of EPA Protocol gases, the owner or operator shall record in electronic and hardcopy format the following information, as applicable:

(A) On and after September 26, 2011, for each gas monitor, for both low and high measurement ranges, record the following information for the mid-level or high-level EPA Protocol gas (as applicable) that is used for daily calibration error tests, and the low-, mid-, and high-level gases used for quarterly linearity checks. For O<sub>2</sub>, if purified air is used as the high-level gas for daily calibrations or linearity checks, record the following information for the low- and mid-level EPA Protocol gas used for linearity checks, instead:

- (1) Gas level code;
- (2) A code for the type of EPA Protocol gas used;
- (3) The PGVP vendor ID issued by EPA for the EPA Protocol gas production site that supplied the EPA Protocol gas cylinder;
- (4) The expiration date for the EPA Protocol gas cylinder; and
- (5) The cylinder number.

(B) On and after September 26, 2011, for each usage of Reference Method 3A in appendix A-2 to part 60 of this chapter, or Method 6C or 7E in appendix A-4 to part 60 of this chapter

performed using EPA Protocol gas for the certification, recertification, routine quality assurance or diagnostic testing (reportable diagnostics, only) of a Part 75 monitoring system, record the information required by paragraphs (a)(9)(x)(A)(1) through (5) of this section.

(xi) On and after March 27, 2012, for all RATAs performed pursuant to § 75.74(c)(2)(ii), section 6.5 of appendix A to this part and section 2.3.1 of appendix B to this part, and for all NO<sub>x</sub> emission testing performed pursuant to section 2.1 of appendix E to this part, or § 75.19(c)(1)(iv), the owner or operator shall record the following information as provided by the AETB:

(A) The name, telephone number and e-mail address of the Air Emission Testing Body;

(B) The name of each on-site Qualified Individual, as defined in § 72.2 of this chapter;

(C) For the reference method(s) that were performed, the date(s) that each on-site Qualified Individual took and passed the relevant qualification exam(s) required by ASTM D7036-04 (incorporated by reference, see § 75.6); and

(D) The name and e-mail address of each qualification exam provider.

\* \* \* \* \*

(12) \* \* \*

(iv) \* \* \*

(E) Type of extension;

(F) Quarter and year; and

(G) On and after April 27, 2011, fuel code for Ozone Season Only reporters under § 75.74(c).

\* \* \* \* \*

(14) [Reserved]

(15) On and after March 27, 2012, for all RATAs performed pursuant to § 75.74(c)(2)(ii), section 6.5 of appendix A to this part or section 2.3.1 of appendix B to this part, the owner or operator shall record in electronic format the following information as provided by the AETB:

(i) The name, telephone number and e-mail address of the Air Emission Testing Body;

(ii) The name of each on-site Qualified Individual, as defined in § 72.2 of this chapter;

(iii) For the reference method(s) that were performed, the date(s) that each on-site Qualified Individual took and passed the relevant qualification exam(s) required by ASTM D7036-04 (incorporated by reference, see § 75.6); and

(iv) The name and e-mail address of each qualification exam provider.

(b) \* \* \*

(6) On and after March 27, 2012, for all stack testing performed pursuant to

section 2.1 of appendix E to this part, the owner or operator shall record in electronic format the following information as provided by the AETB:

(i) The name, telephone number and e-mail address of the Air Emission Testing Body;

(ii) The name of each on-site Qualified Individual, as defined in § 72.2 of this chapter;

(iii) For the reference method(s) that were performed, the date(s) that each on-site Qualified Individual took and passed the relevant qualification exam(s) required by ASTM D7036-04 (incorporated by reference, see § 75.6); and

(iv) The name and e-mail address of each qualification exam provider.

(c) Except as otherwise provided in § 75.58(b)(3)(i), for units with add-on SO<sub>2</sub> or NO<sub>x</sub> emission controls following the provisions of § 75.34(a)(1) or (a)(2), the owner or operator shall keep the following records on-site in the quality assurance/quality control plan required by section 1 of appendix B to this part:

\* \* \* \* \*

(d) \* \* \*

(3) \* \* \*

(x) Documentation supporting the qualification of all units in the group for reduced testing, in accordance with the criteria established in § 75.19(c)(1)(iv)(B)(1);

(xi) Purpose of group tests;

(xii) On and after April 27, 2011, the number of tests for group; and

(xiii) On and after April 27, 2011, the number of units in group.

(4) On and after March 27, 2012, for all NO<sub>x</sub> emission testing performed pursuant to § 75.19(c)(1)(iv), the owner or operator shall record in electronic format the following information as provided by the AETB:

(i) The name, telephone number and e-mail address of the Air Emission Testing Body;

(ii) The name of each on-site Qualified Individual, as defined in § 72.2 of this chapter;

(iii) For the reference method(s) that were performed, the date(s) that each on-site Qualified Individual took and passed the relevant qualification exam(s) required by ASTM D7036-04 (incorporated by reference, see § 75.6); and

(iv) The name and e-mail address of each qualification exam provider.

**§ 75.60 [Amended]**

■ 24. Section 75.60 is amended by removing paragraph (b)(8).

■ 25. Section 75.61 is amended by:

■ a. Revising paragraph (a)(1) introductory text;

■ b. Revising the first sentence of paragraph (a)(5) introductory text; and  
■ c. Revising paragraph (a)(8), to read as follows:

**§ 75.61 Notifications.**

(a) \* \* \*

(1) *Initial certification and recertification test notifications.* The owner or operator or designated representative for an affected unit shall submit written notification of initial certification tests and revised test dates as specified in § 75.20 for continuous emission monitoring systems, for alternative monitoring systems under subpart E of this part, or for excepted monitoring systems under appendix E to this part, except as provided in paragraphs (a)(1)(iii), (a)(1)(iv) and (a)(4) of this section. The owner or operator shall also provide written notification of testing performed under § 75.19(c)(1)(iv)(A) to establish fuel-and-unit-specific NO<sub>x</sub> emission rates for low mass emissions units. Such notifications are not required, however, for initial certifications and recertifications of excepted monitoring systems under appendix D to this part.

\* \* \* \* \*

(5) *Periodic relative accuracy test audits, appendix E retests, and low mass emissions unit retests.* The owner or operator or designated representative of an affected unit shall submit written notice of the date of periodic relative accuracy testing performed under section 2.3.1 of appendix B to this part, of periodic retesting performed under section 2.2 of appendix E to this part, and of periodic retesting of low mass emissions units performed under § 75.19(c)(1)(iv)(D), no later than 21 days prior to the first scheduled day of testing.

\* \* \* \* \*

(8) *Certification deadline date for new or newly affected units.* The designated representative of a new or newly affected unit shall provide notification of the date on which the relevant deadline for initial certification is reached, either as provided in § 75.4(b) or § 75.4(c), or as specified in a State or Federal SO<sub>2</sub> or NO<sub>x</sub> mass emission reduction program that incorporates by reference, or otherwise adopts, the monitoring, recordkeeping, and reporting requirements of subpart F, G, or H of this part. The notification shall be submitted no later than 7 calendar days after the applicable certification deadline is reached.

\* \* \* \* \*

■ 26. Section 75.62 is amended by adding paragraph (d) to read as follows:

**§ 75.62 Monitoring plan submittals.**

\* \* \* \* \*

(d) On and after April 27, 2011, consistent with § 72.21 of this chapter, a hardcopy cover letter signed by the Designated Representative (DR) shall accompany each hardcopy monitoring plan submittal. The cover letter shall include the certification statement described in § 72.21(b) of this chapter, and shall be submitted to the applicable EPA Regional Office and to the appropriate State or local air pollution control agency. For electronic monitoring plan submittals to the Administrator, a cover letter is not required. However, at his or her discretion, the DR may include important explanatory text or comments with an electronic monitoring plan submittal, so long as the information is provided in an electronic format that is compatible with the other data required to be reported under this section.

■ 27. Section 75.63 is amended by adding paragraph (d) to read as follows:

**§ 75.63 Initial certification or recertification application.**

\* \* \* \* \*

(d) Consistent with § 72.21 of this chapter, a hardcopy cover letter signed by the Designated Representative (DR) shall accompany the hardcopy portion of each certification or recertification application. The cover letter shall include the certification statement described in § 72.21(b) of this chapter, and shall be submitted to the applicable EPA Regional Office and to the appropriate State or local air pollution control agency. For the electronic portion of a certification or recertification application submitted to the Administrator, a cover letter is not required. However, at his or her discretion, the DR may include important explanatory text or comments with the electronic portion of a certification or recertification application, so long as the information is provided in an electronic format compatible with the other data required to be reported under this section.

■ 28. Section 75.64 is amended by:

- a. Revising paragraph (a)(5);
- b. Revising paragraph (a)(7)(xi);
- c. Revising paragraph (a)(7)(xii)(D);
- d. Adding paragraph (a)(7)(xiii);
- e. Redesignating paragraph (a)(127) as paragraph (a)(12); and
- f. Revising paragraph (g), to read as follows:

**§ 75.64 Quarterly reports.**

(a) \* \* \*

(5) The daily calibration error test and daily interference check information required in § 75.59(a)(1) and (a)(2) must

always be included in the electronic quarterly emissions report. All other certification, quality assurance, and quality control information in § 75.59 that is not excluded from electronic reporting under paragraph (a)(2) or (a)(7) of this section shall be submitted separately, either prior to or concurrent with the submittal of the relevant electronic quarterly emissions report. However, reporting of the information in § 75.59(a)(9)(x) is not required until September 26, 2011, and reporting of the information in § 75.59(a)(15), (b)(6), and (d)(4) is not required until March 27, 2012.

\* \* \* \* \*

(7) \* \* \*

(xi) Data and results of RATAs that are aborted or invalidated due to problems with the reference method or operational problems with the unit and data and results of linearity checks that are aborted or invalidated due to problems unrelated to monitor performance;

(xii) \* \* \*

(D) The data under § 75.59(a)(7)(ix)(A) through (F) shall be reported for all flow RATAs at rectangular stacks or ducts in which Method 2 in appendices A–1 and A–2 to part 60 of this chapter is used and a wall effects adjustment factor is applied; and

(xiii) The certification required by section 6.1.2(b) of appendix A to this part and recorded under § 75.57(a)(7).

\* \* \* \* \*

(g) At his or her discretion, the DR may include important explanatory text or comments with an electronic quarterly report submittal, so long as the information is provided in a format that is compatible with the other data required to be reported under this section.

**Subpart I—[Removed]**

■ 29. Subpart I, consisting of §§ 75.80 through 75.84, is removed.

■ 30. Appendix A to part 75 is amended by:

- a. Revising section 1.1;
- b. Removing sections 2.1.7, 2.1.7.1 through 2.1.7.4, and 2.2.3;
- c. Removing paragraph (c) of section 3.1 and paragraph (3) of section 3.2;
- d. Removing sections 3.3.8 and 3.4.3;
- e. Removing the introductory text of section 4 and adding paragraphs (a), (b), and (c) in its place;
- f. Revising paragraph (6) of section 4;
- g. Revising paragraphs (a) and (b) of Section 5.1.4;
- h. Removing paragraphs (c) and (d) of Section 5.1.4;
- i. Revising the first sentence in Section 5.1.5;

- j. Removing section 5.1.9;
- k. Revising section 6.1.2;
- l. Revising the first sentence of section 6.2 introductory text;
- m. Removing paragraphs (g) and (h) of section 6.2;
- n. Revising the introductory text of section 6.3.1;
- o. Revising the introductory text of sections 6.4 and 6.5;
- p. Revising paragraphs (c), (e), and (g) of section 6.5;
- q. Revising section 6.5.1;
- r. Removing paragraph (c) of section 6.5.6;
- s. Revising paragraphs (a) and (b) of section 6.5.7;
- t. Revising section 6.5.10;
- u. Revising the heading and introductory text of section 7.3;
- v. Revising section 7.3.1;
- w. Revising the introductory text of section 7.6;
- x. Revising section 7.6.1; and
- y. Revising paragraphs (b) and (f) of section 7.6.5, to read as follows:

**Appendix A to Part 75—Specifications and Procedures****1. Installation and Measurement Location****1.1 Gas Monitors**

(a) Following the procedures in section 8.1.1 of Performance Specification 2 in appendix B to part 60 of this chapter, install the pollutant concentration monitor or monitoring system at a location where the pollutant concentration and emission rate measurements are directly representative of the total emissions from the affected unit. Select a representative measurement point or path for the monitor probe(s) (or for the path from the transmitter to the receiver) such that the SO<sub>2</sub>, CO<sub>2</sub>, O<sub>2</sub>, or NO<sub>x</sub> concentration monitoring system or NO<sub>x</sub>-diluent CEMS (NO<sub>x</sub> pollutant concentration monitor and diluent gas monitor) will pass the relative accuracy test (*see* section 6 of this appendix).

(b) It is recommended that monitor measurements be made at locations where the exhaust gas temperature is above the dew-point temperature. If the cause of failure to meet the relative accuracy tests is determined to be the measurement location, relocate the monitor probe(s).

\* \* \* \* \*

**4. Data Acquisition and Handling Systems**

(a) Automated data acquisition and handling systems shall read and record the entire range of pollutant concentrations and volumetric flow from zero through full-scale and provide a continuous, permanent record of all measurements and required information in an electronic format. These systems also shall have the capability of interpreting and converting the individual output signals from an SO<sub>2</sub> pollutant concentration monitor, a flow monitor, a CO<sub>2</sub> monitor, an O<sub>2</sub> monitor, a NO<sub>x</sub> pollutant concentration monitor, a NO<sub>x</sub>-diluent CEMS, and a moisture monitoring system to produce a continuous readout of pollutant emission

rates or pollutant mass emissions (as applicable) in the appropriate units (e.g., lb/hr, lb/mmBtu, tons/hr).

(b) Data acquisition and handling systems shall also compute and record: Monitor calibration error; any bias adjustments to SO<sub>2</sub>, NO<sub>x</sub>, flow rate, or NO<sub>x</sub> emission rate data; and all missing data procedure statistics specified in subpart D of this part.

(c) For an excepted monitoring system under appendix D or E of this part, data acquisition and handling systems shall:

\* \* \* \* \*

(6) Provide a continuous, permanent record of all measurements and required information in an electronic format.

\* \* \* \* \*

5.1 Reference Gases

\* \* \* \* \*

5.1.4 EPA Protocol Gases

(a) An EPA Protocol gas is a calibration gas mixture prepared and analyzed according to Section 2 of the "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards," September 1997, as amended on August 25, 1999, EPA-600/R-97/121 (incorporated by reference, see § 75.6) or such revised procedure as approved by the Administrator.

(b) EPA Protocol gas concentrations must be certified by an EPA Protocol gas production site to have an analytical uncertainty (95-percent confidence interval) to be not more than plus or minus 2.0 percent (inclusive) of the certified concentration (tag value) of the gas mixture. The uncertainty must be calculated using the statistical procedures (or equivalent statistical techniques) that are listed in Section 2.1.8 of the "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards," September 1997, as amended on August 25, 1999, EPA-600/R-97/121 (incorporated by reference, see § 75.6).

5.1.5 Research Gas Mixtures

Concentrations of research gas mixtures, as defined in § 72.2 of this chapter, must be certified by the National Institute of Standards and Technology to have an analytical uncertainty (95-percent confidence interval) calculated using the statistical procedures (or equivalent statistical techniques) that are listed in Section 2.1.8 of the "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards," September 1997, as amended on August 25, 1999, EPA-600/R-97/121 (incorporated by reference, see § 75.6) to be not more than plus or minus 2.0 percent (inclusive) of the concentration specified on the cylinder label (i.e., the tag value) in order to be used as calibration gas under this part.\* \* \*

\* \* \* \* \*

6.1 General Requirements

\* \* \* \* \*

6.1.2 Requirements for Air Emission Testing

(a) On and after March 27, 2012, all relative accuracy test audits (RATAs) of CEMS under this part, and stack testing under § 75.19 and Appendix E to this part shall be conducted

by an Air Emission Testing Body (AETB) which has provided to the owner or operator of a unit subject to this part the documentation required in paragraph (b) of this section, demonstrating its conformance to ASTM D7036-04 (incorporated by reference, see § 75.6).

(b) The owner or operator shall obtain from the AETB a certification that as of the time of testing the AETB is operating in conformance with ASTM D7036-04 (incorporated by reference, see § 75.6). The AETB's certification may be limited in scope to the tests identified under paragraph (a). The AETB's certification need not extend to other work it may perform. This certification shall be provided in the form of either:

(1) A certificate of accreditation or interim accreditation for the relevant test methods issued by a recognized, national accreditation body; or

(2) A letter of certification for the relevant test methods signed by a member of the senior management staff of the AETB.

(c) The owner or operator shall obtain from the AETB the information required under §§ 75.59(a)(15), (b)(6), and (d)(4), as applicable.

(d) While under no obligation to request the following information from an AETB, to review the information provided by the AETB in response to such a request, or to take any other action related to the response, the owner or operator may find it useful to request that AETBs complying with paragraph (b)(2) of this section provide a copy of the following:

(1) The AETB's quality manual. For the purpose of application of 40 CFR part 2, subpart B, AETB's concerned about the potential for public access to confidential business information (CBI) may identify any information subject to such a claim in the copy provided;

(2) The results of any internal audits performed by the AETB and any external audits of the AETB during the 12 month period through the previous calendar quarter;

(3) Performance data (as defined in ASTM D7036-04 (incorporated by reference, see § 75.6)) collected by the AETB, including corrective actions implemented, during the 12 month period through the previous calendar quarter; and

(4) Training records for all on-site technical personnel, including any Qualified Individuals, for the 12 month period through the previous calendar quarter.

(e) All relative accuracy testing performed pursuant to § 75.74(c)(2)(ii), section 6.5 of appendix A to this part or section 2.3.1 of appendix B to this part, and stack testing under § 75.19 and Appendix E to this part shall be overseen and supervised on site by at least one Qualified Individual, as defined in § 72.2 of this chapter with respect to the methods employed in the test project. If the source owner or operator, or a State, local, or EPA observer, discovers while the test team is still on site, that at least one QI did not oversee and supervise the entire test (as qualified by this paragraph (e)), only those portions of the test that were overseen and supervised by at least one QI as described above may be used under this part. However, allowance is made for normal activities of a

QI who is overseeing and supervising a test, e.g., bathroom breaks, meal breaks, and emergencies that may arise during a test.

(f) Except as provided in paragraph (e), no RATA performed pursuant to § 75.74(c)(2)(ii), section 6.5 of appendix A to this part or section 2.3.1 of appendix B to this part, and no stack test under § 75.19 or Appendix E to this part (or portion of such a RATA or stack test) conducted by an AETB (as defined in § 72.2) shall be invalidated under this part as a result of the failure of the AETB to conform to ASTM D7036-04 (incorporated by reference, see § 75.6). Validation of such tests is determined based on the other part 75 testing requirements. EPA recommends that proper observation of tests and review of test results continue, regardless of whether an AETB fully conforms to ASTM D7036-04.

(g) An owner or operator who has requested information from an AETB under paragraph (d) of this part who believes that the information provided by the AETB was either incomplete or inaccurate may request the Administrator's assistance in remedying the alleged deficiencies. Upon such a request, if the Administrator concurs that the information submitted to a source subject to part 75 by an AETB under this section is either incomplete or inaccurate, the Administrator will provide the AETB a description of the deficiencies to be remedied. The Administrator's determination of completeness and accuracy of information will be solely based on the provisions of ASTM D7036-04 (incorporated by reference, see § 75.6) and this part. The Administrator may post the name of the offending AETB on Agency Web sites (including the CAMD Web site <http://www.epa.gov/airmarkets/emissions/aetb.html>) if within 30 days of the Administrator having provided the AETB a description of the deficiencies to be remedied, the AETB does not satisfactorily respond to the source and notify the Administrator of the response by submitting the notification to [aetb@epa.gov](mailto:aetb@epa.gov), unless otherwise provided by the Administrator. The AETB need not submit the information it provides to the owner or operator to the Administrator, unless specifically requested by the Administrator. If after the AETB's name is posted, the Administrator, in consultation with the source, determines that the AETB's response is sufficient, the AETB's name will be removed from the EPA Web sites.

6.2 Linearity Check (General Procedures)

Check the linearity of each SO<sub>2</sub>, NO<sub>x</sub>, CO<sub>2</sub>, and O<sub>2</sub> monitor while the unit, or group of units for a common stack, is combusting fuel at conditions of typical stack temperature and pressure; it is not necessary for the unit to be generating electricity during this test.

\* \* \*

6.3 \* \* \*

6.3.1 Gas Monitor 7-Day Calibration Error Test

The following monitors and ranges are exempted from the 7-day calibration error test requirements of this part: the SO<sub>2</sub>, NO<sub>x</sub>, CO<sub>2</sub> and O<sub>2</sub> monitors installed on peaking units (as defined in § 72.2 of this chapter);

and any SO<sub>2</sub> or NO<sub>x</sub> measurement range with a span value of 50 ppm or less. In all other cases, measure the calibration error of each SO<sub>2</sub> monitor, each NO<sub>x</sub> monitor, and each CO<sub>2</sub> or O<sub>2</sub> monitor while the unit is combusting fuel (but not necessarily generating electricity) once each day for 7 consecutive operating days according to the following procedures. (In the event that unit outages occur after the commencement of the test, the 7 consecutive unit operating days need not be 7 consecutive calendar days). Units using dual span monitors must perform the calibration error test on both high- and low-scales of the pollutant concentration monitor. The calibration error test procedures in this section and in section 6.3.2 of this appendix shall also be used to perform the daily assessments and additional calibration error tests required under sections 2.1.1 and 2.1.3 of appendix B to this part. Do not make manual or automatic adjustments to the monitor settings until after taking measurements at both zero and high concentration levels for that day during the 7-day test. If automatic adjustments are made following both injections, conduct the calibration error test such that the magnitude of the adjustments can be determined and recorded. Record and report test results for each day using the unadjusted concentration measured in the calibration error test prior to making any manual or automatic adjustments (*i.e.*, resetting the calibration). The calibration error tests should be approximately 24 hours apart, (unless the 7-day test is performed over nonconsecutive days). Perform calibration error tests at both the zero-level concentration and high-level concentration, as specified in section 5.2 of this appendix. Alternatively, a mid-level concentration gas (50.0 to 60.0 percent of the span value) may be used in lieu of the high-level gas, provided that the mid-level gas is more representative of the actual stack gas concentrations. A calibration gas blend may be used as both a zero-level gas and an upscale (mid- or high-level) gas, where appropriate. In addition, repeat the procedure for SO<sub>2</sub> and NO<sub>x</sub> pollutant concentration monitors using the low-scale for units equipped with emission controls or other units with dual span monitors. Use only calibration gas, as specified in section 5.1 of this appendix. Introduce the calibration gas at the gas injection port, as specified in section 2.2.1 of this appendix. Operate each monitor in its normal sampling mode. For extractive and dilution type monitors, pass the calibration gas through all filters, scrubbers, conditioners, and other monitor components used during normal sampling and through as much of the sampling probe as is practical. For in-situ type monitors, perform calibration, checking all active electronic and optical components, including the transmitter, receiver, and analyzer. Challenge the pollutant concentration monitors and CO<sub>2</sub> or O<sub>2</sub> monitors once with each calibration gas. Record the monitor response from the data acquisition and handling system. Using Equation A-5 of this appendix, determine the calibration error at each concentration once each day (at approximately 24-hour intervals) for 7 consecutive days according to the

procedures given in this section. The results of a 7-day calibration error test are acceptable for monitor or monitoring system certification, recertification or diagnostic testing if none of these daily calibration error test results exceed the applicable performance specifications in section 3.1 of this appendix. The status of emission data from a gas monitor prior to and during a 7-day calibration error test period shall be determined as follows:

\* \* \* \* \*

#### 6.4 Cycle Time Test

Perform cycle time tests for each pollutant concentration monitor and continuous emission monitoring system while the unit is operating, according to the following procedures. Use a zero-level and a high-level calibration gas (as defined in section 5.2 of this appendix) alternately. To determine the downscale cycle time, measure the concentration of the flue gas emissions until the response stabilizes. Record the stable emissions value. Inject a zero-level concentration calibration gas into the probe tip (or injection port leading to the calibration cell, for in situ systems with no probe). Record the time of the zero gas injection, using the data acquisition and handling system (DAHS). Next, allow the monitor to measure the concentration of the zero gas until the response stabilizes. Record the stable ending calibration gas reading. Determine the downscale cycle time as the time it takes for 95.0 percent of the step change to be achieved between the stable stack emissions value and the stable ending zero gas reading. Then repeat the procedure, starting with stable stack emissions and injecting the high-level gas, to determine the upscale cycle time, which is the time it takes for 95.0 percent of the step change to be achieved between the stable stack emissions value and the stable ending high-level gas reading. Use the following criteria to assess when a stable reading of stack emissions or calibration gas concentration has been attained. A stable value is equivalent to a reading with a change of less than 2.0 percent of the span value for 2 minutes, or a reading with a change of less than 6.0 percent from the measured average concentration over 6 minutes. Alternatively, the reading is considered stable if it changes by no more than 0.5 ppm or 0.2% CO<sub>2</sub> or O<sub>2</sub> (as applicable) for two minutes. (Owners or operators of systems which do not record data in 1-minute or 3-minute intervals may petition the Administrator under § 75.66 for alternative stabilization criteria). For monitors or monitoring systems that perform a series of operations (such as purge, sample, and analyze), time the injections of the calibration gases so they will produce the longest possible cycle time. Refer to Figures 6a and 6b in this appendix for example calculations of upscale and downscale cycle times. Report the slower of the two cycle times (upscale or downscale) as the cycle time for the analyzer. Prior to January 1, 2009 for the NO<sub>x</sub>-diluent continuous emission monitoring system test, either record and report the longer cycle time of the two component analyzers as the system cycle time or record the cycle time for each

component analyzer separately (as applicable). On and after January 1, 2009, record the cycle time for each component analyzer separately. For time-shared systems, perform the cycle time tests at each probe locations that will be polled within the same 15-minute period during monitoring system operations. To determine the cycle time for time-shared systems, at each monitoring location, report the sum of the cycle time observed at that monitoring location plus the sum of the time required for all purge cycles (as determined by the continuous emission monitoring system manufacturer) at each of the probe locations of the time-shared systems. For monitors with dual ranges, report the test results for each range separately. Cycle time test results are acceptable for monitor or monitoring system certification, recertification or diagnostic testing if none of the cycle times exceed 15 minutes. The status of emissions data from a monitor prior to and during a cycle time test period shall be determined as follows:

\* \* \* \* \*

#### 6.5 Relative Accuracy and Bias Tests (General Procedures)

Perform the required relative accuracy test audits (RATAs) as follows for each CO<sub>2</sub> emissions concentration monitor (including O<sub>2</sub> monitors used to determine CO<sub>2</sub> emissions concentration), each SO<sub>2</sub> pollutant concentration monitor, each NO<sub>x</sub> concentration monitoring system used to determine NO<sub>x</sub> mass emissions, each flow monitor, each NO<sub>x</sub>-diluent CEMS, each O<sub>2</sub> or CO<sub>2</sub> diluent monitor used to calculate heat input, and each moisture monitoring system. For NO<sub>x</sub> concentration monitoring systems used to determine NO<sub>x</sub> mass emissions, as defined in § 75.71(a)(2), use the same general RATA procedures as for SO<sub>2</sub> pollutant concentration monitors; however, use the reference methods for NO<sub>x</sub> concentration specified in section 6.5.10 of this appendix:

\* \* \* \* \*

(c) For monitoring systems with dual ranges, perform the relative accuracy test on the range normally used for measuring emissions. For units with add-on SO<sub>2</sub> or NO<sub>x</sub> controls that operate continuously rather than seasonally, or for units that need a dual range to record high concentration "spikes" during startup conditions, the low range is considered normal. However, for some dual span units (*e.g.*, for units that use fuel switching or for which the emission controls are operated seasonally), provided that both monitor ranges are connected to a common probe and sample interface, either of the two measurement ranges may be considered normal; in such cases, perform the RATA on the range that is in use at the time of the scheduled test. If the low and high measurement ranges are connected to separate sample probes and interfaces, RATA testing on both ranges is required.

\* \* \* \* \*

(e) Complete each single-load relative accuracy test audit within a period of 168 consecutive unit operating hours, as defined in § 72.2 of this chapter (or, for CEMS installed on common stacks or bypass stacks, 168 consecutive stack operating hours, as

defined in § 72.2 of this chapter). For 2-level and 3-level flow monitor RATAs, complete all of the RATAs at all levels, to the extent practicable, within a period of 168 consecutive unit (or stack) operating hours; however, if this is not possible, up to 720 consecutive unit (or stack) operating hours may be taken to complete a multiple-load flow RATA.

\* \* \* \* \*

(g) For each SO<sub>2</sub> or CO<sub>2</sub> emissions concentration monitor, each flow monitor, each CO<sub>2</sub> or O<sub>2</sub> diluent monitor used to determine heat input, each NO<sub>x</sub> concentration monitoring system used to determine NO<sub>x</sub> mass emissions, as defined in § 75.71(a)(2), each moisture monitoring system, and each NO<sub>x</sub>-diluent CEMS, calculate the relative accuracy, in accordance with section 7.3 or 7.4 of this appendix, as applicable. In addition (except for CO<sub>2</sub>, O<sub>2</sub>, or moisture monitors), test for bias and determine the appropriate bias adjustment factor, in accordance with sections 7.6.4 and 7.6.5 of this appendix, using the data from the relative accuracy test audits.

#### 6.5.1 Gas Monitoring System RATAs (Special Considerations)

(a) Perform the required relative accuracy test audits for each SO<sub>2</sub> or CO<sub>2</sub> emissions concentration monitor, each CO<sub>2</sub> or O<sub>2</sub> diluent monitor used to determine heat input, each NO<sub>x</sub>-diluent CEMS, and each NO<sub>x</sub> concentration monitoring system used to determine NO<sub>x</sub> mass emissions, as defined in § 75.71(a)(2), at the normal load level or normal operating level for the unit (or combined units, if common stack), as defined in section 6.5.2.1 of this appendix. If two load levels or operating levels have been designated as normal, the RATAs may be done at either load (or operating) level.

(b) For the initial certification of a gas monitoring system and for recertifications in which, in addition to a RATA, one or more other tests are required (*i.e.*, a linearity test, cycle time test, or 7-day calibration error test), EPA recommends that the RATA not be commenced until the other required tests of the CEMS have been passed.

\* \* \* \* \*

#### 6.5.7 Sampling Strategy

(a) Conduct the reference method tests allowed in section 6.5.10 of this appendix so they will yield results representative of the pollutant concentration, emission rate, moisture, temperature, and flue gas flow rate from the unit and can be correlated with the pollutant concentration monitor, CO<sub>2</sub> or O<sub>2</sub> monitor, flow monitor, and SO<sub>2</sub> or NO<sub>x</sub> CEMS measurements. The minimum acceptable time for a gas monitoring system RATA run or for a moisture monitoring system RATA run is 21 minutes. For each run of a gas monitoring system RATA, all necessary pollutant concentration measurements, diluent concentration measurements, and moisture measurements (if applicable) must, to the extent practicable, be made within a 60-minute period. For NO<sub>x</sub>-diluent monitoring system RATAs, the pollutant and diluent concentration measurements must be made simultaneously. For flow monitor RATAs, the minimum time

per run shall be 5 minutes. Flow rate reference method measurements allowed in section 6.5.10 of this appendix may be made either sequentially from port-to-port or simultaneously at two or more sample ports. The velocity measurement probe may be moved from traverse point to traverse point either manually or automatically. If, during a flow RATA, significant pulsations in the reference method readings are observed, be sure to allow enough measurement time at each traverse point to obtain an accurate average reading when a manual readout method is used (*e.g.*, a "sight-weighted" average from a manometer). Also, allow sufficient measurement time to ensure that stable temperature readings are obtained at each traverse point, particularly at the first measurement point at each sample port, when a probe is moved sequentially from port-to-port. A minimum of one set of auxiliary measurements for stack gas molecular weight determination (*i.e.*, diluent gas data and moisture data) is required for every clock hour of a flow RATA or for every three test runs (whichever is less restrictive). Alternatively, moisture measurements for molecular weight determination may be performed before and after a series of flow RATA runs at a particular load level (low, mid, or high), provided that the time interval between the two moisture measurements does not exceed three hours. If this option is selected, the results of the two moisture determinations shall be averaged arithmetically and applied to all RATA runs in the series. Successive flow RATA runs may be performed without waiting in between runs. If an O<sub>2</sub> diluent monitor is used as a CO<sub>2</sub> continuous emission monitoring system, perform a CO<sub>2</sub> system RATA (*i.e.*, measure CO<sub>2</sub>, rather than O<sub>2</sub>, with the applicable reference method allowed in section 6.5.10 of this appendix).

For moisture monitoring systems, an appropriate coefficient, "K" factor or other suitable mathematical algorithm may be developed prior to the RATA, to adjust the monitoring system readings with respect to the applicable reference method allowed in section 6.5.10 of this appendix. If such a coefficient, K-factor or algorithm is developed, it shall be applied to the CEMS readings during the RATA and (if the RATA is passed), to the subsequent CEMS data, by means of the automated data acquisition and handling system. The owner or operator shall keep records of the current coefficient, K factor or algorithm, as specified in § 75.59(a)(5)(vii). Whenever the coefficient, K factor or algorithm is changed, a RATA of the moisture monitoring system is required.

(b) To properly correlate individual SO<sub>2</sub> or NO<sub>x</sub> CEMS data (in lb/mmBtu) and volumetric flow rate data with the applicable reference method data, annotate the beginning and end of each reference method test run (including the exact time of day) on the individual chart recorder(s) or other permanent recording device(s).

\* \* \* \* \*

#### 6.5.10 Reference Methods

The following methods are from appendix A to part 60 of this chapter, and are the reference methods for performing relative

accuracy test audits under this part: Method 1 or 1A in appendix A-1 to part 60 of this chapter for siting; Method 2 in appendix A-1 to part 60 of this chapter or its allowable alternatives in appendices A-1 and A-2 to part 60 of this chapter (except for Methods 2B and 2E in appendix A-1 to part 60 of this chapter) for stack gas velocity and volumetric flow rate; Methods 3, 3A or 3B in appendix A-2 to part 60 of this chapter for O<sub>2</sub> and CO<sub>2</sub>; Method 4 in appendix A-3 to part 60 of this chapter for moisture; Methods 6, 6A or 6C in appendix A-4 to part 60 of this chapter for SO<sub>2</sub>; and Methods 7, 7A, 7C, 7D or 7E in appendix A-4 to part 60 of this chapter for NO<sub>x</sub>, excluding the exceptions to Method 7E identified in § 75.22(a)(5). When using Method 7E for measuring NO<sub>x</sub> concentration, total NO<sub>x</sub>, including both NO and NO<sub>2</sub>, must be measured. When using EPA Protocol gas with Methods 3A, 6C, and 7E, the gas must be from an EPA Protocol gas production site that is participating in the EPA Protocol Gas Verification Program, pursuant to § 75.21(g)(6). An EPA Protocol gas cylinder certified by or ordered from a non-participating production site no later than May 27, 2011 may be used for the purposes of this part until the earlier of the cylinder's expiration date or the date on which the cylinder gas pressure reaches 150 psig; however, in no case shall the cylinder be recertified by a non-participating EPA Protocol gas production site to extend its useful life and be used by a source subject to this part. In the event that an EPA Protocol gas production site is removed from the list of PGVP participants on the same date as or after the date on which a particular cylinder is certified or ordered, that gas cylinder may continue to be used for the purposes of this part until the earlier of the cylinder's expiration date or the date on which the cylinder gas pressure reaches 150 psig; however, in no case shall the cylinder be recertified by a non-participating EPA Protocol gas production site to extend its useful life and be used by a source subject to this part.

\* \* \* \* \*

#### 7.3 Relative Accuracy for SO<sub>2</sub> and CO<sub>2</sub> Emissions Concentration Monitors, O<sub>2</sub> Monitors, NO<sub>x</sub> Concentration Monitoring Systems, and Flow Monitors

Analyze the relative accuracy test audit data from the reference method tests for SO<sub>2</sub> and CO<sub>2</sub> emissions concentration monitors, CO<sub>2</sub> or O<sub>2</sub> monitors used for heat input rate determination, NO<sub>x</sub> concentration monitoring systems used to determine NO<sub>x</sub> mass emissions under subpart H of this part, and flow monitors using the following procedures. Summarize the results on a data sheet. An example is shown in Figure 2. Calculate the mean of the monitor or monitoring system measurement values. Calculate the mean of the reference method values. Using data from the automated data acquisition and handling system, calculate the arithmetic differences between the reference method and monitor measurement data sets. Then calculate the arithmetic mean of the difference, the standard deviation, the confidence coefficient, and the monitor or monitoring system relative accuracy using the following procedures and equations.

7.3.1 Arithmetic Mean

Calculate the arithmetic mean of the differences of a data set as follows:

$$\bar{d} = \frac{1}{n} \sum_{i=1}^n d_i \quad (\text{Eq. A-7})$$

Where:

$\bar{d}$  = Arithmetic mean of the differences

n = Number of data points (test runs)

$\sum_{i=1}^n d_i$  = Algebraic sum of the individual differences  $d_i$

$d_i$  = The difference between a reference method value and the corresponding continuous emission monitoring system value ( $RM_i - CEM_i$ ), for a given data point

\* \* \* \* \*

7.6 Bias Test and Adjustment Factor

Test the following relative accuracy test audit data sets for bias: SO<sub>2</sub> pollutant concentration monitors; flow monitors; NO<sub>x</sub> concentration monitoring systems used to determine NO<sub>x</sub> mass emissions, as defined in 75.71(a)(2); and NO<sub>x</sub>-diluent CEMS using the procedures outlined in sections 7.6.1 through 7.6.5 of this appendix. For multiple-load flow RATAs, perform a bias test at each load level designated as normal under section 6.5.2.1 of this appendix.

7.6.1 Arithmetic Mean

Calculate the arithmetic mean of the differences of the data set using Equation A-7 of this appendix. To calculate bias for an SO<sub>2</sub> or NO<sub>x</sub> pollutant concentration monitor, “d<sub>i</sub>” is, for each paired data point, the difference between the SO<sub>2</sub> or NO<sub>x</sub> concentration value (in ppm) obtained from the reference method and the monitor. To calculate bias for a flow monitor, “d<sub>i</sub>” is, for each paired data point, the difference between the flow rate values (in scfh) obtained from the reference method and the monitor. To calculate bias for a NO<sub>x</sub>-diluent continuous emission monitoring system, “d<sub>i</sub>” is, for each paired data point, the difference between the NO<sub>x</sub> emission rate values (in lb/mmBtu) obtained from the reference method and the monitoring system.

\* \* \* \* \*

7.6.5 \* \* \*

(b) For single-load RATAs of SO<sub>2</sub> pollutant concentration monitors, NO<sub>x</sub> concentration monitoring systems, and NO<sub>x</sub>-diluent monitoring systems, and for the single-load flow RATAs required or allowed under

section 6.5.2 of this appendix and sections 2.3.1.3(b) and 2.3.1.3(c) of appendix B to this part, the appropriate BAF is determined directly from the RATA results at normal load, using Equation A-12. Notwithstanding, when a NO<sub>x</sub> concentration CEMS or an SO<sub>2</sub> CEMS or a NO<sub>x</sub>-diluent CEMS installed on a low-emitting affected unit (*i.e.*, average SO<sub>2</sub> or NO<sub>x</sub> concentration during the RATA ≤ 250 ppm or average NO<sub>x</sub> emission rate ≤ 0.200 lb/mmBtu) meets the normal 10.0 percent relative accuracy specification (as calculated using Equation A-10) or the alternate relative accuracy specification in section 3.3 of this appendix for low-emitters, but fails the bias test, the BAF may either be determined using Equation A-12, or a default BAF of 1.111 may be used.

\* \* \* \* \*

(f) Use the bias-adjusted values in computing substitution values in the missing data procedure, as specified in subpart D of this part, and in reporting the concentration of SO<sub>2</sub>, the flow rate, the average NO<sub>x</sub> emission rate, the unit heat input, and the calculated mass emissions of SO<sub>2</sub> and CO<sub>2</sub> during the quarter and calendar year, as specified in subpart G of this part. In addition, when using a NO<sub>x</sub> concentration monitoring system and a flow monitor to calculate NO<sub>x</sub> mass emissions under subpart H of this part, use bias-adjusted values for NO<sub>x</sub> concentration and flow rate in the mass emission calculations and use bias-adjusted NO<sub>x</sub> concentrations to compute the appropriate substitution values for NO<sub>x</sub> concentration in the missing data routines under subpart D of this part.

\* \* \* \* \*

■ 31. Appendix B to part 75 is amended by:

- a. Revising section 1.1.4;
- b. Removing sections 1.5 and 1.5.1 through 1.5.6;
- c. Revising paragraph (a) of section 2.1.4;
- d. Adding paragraph (c) to section 2.1.4;
- e. Revising section 2.2.1;
- f. Adding paragraph (i) to section 2.2.3;
- g. Revising paragraph (a) of section 2.3.1.1, paragraph (a) of section 2.3.1.3, and paragraphs (d) and (i) of section 2.3.2;
- h. Adding paragraph (k) to section 2.3.2;
- i. Revising section 2.3.4;
- j. Removing section 2.6;
- k. Revising Figures 1 and 2; and
- e. Adding Figure 3, to read as follows:

**Appendix B to Part 75—Quality Assurance and Quality Control Procedures**

1. Quality Assurance/Quality Control Program

\* \* \* \* \*

1.1.4 The provisions in section 6.1.2 of appendix A to this part shall apply to the annual RATAs described in § 75.74(c)(2)(ii) and to the semiannual and annual RATAs described in section 2.3 of this appendix.

\* \* \* \* \*

2. Frequency of Testing

\* \* \* \* \*

2.1.4 Data Validation

(a) An out-of-control period occurs when the calibration error of an SO2 or NOx pollutant concentration monitor exceeds 5.0 percent of the span value, when the calibration error of a CO2 or O2 monitor (including O2 monitors used to measure CO2 emissions or percent moisture) exceeds 1.0 percent O2 or CO2, or when the calibration error of a flow monitor exceeds 6.0 percent of the span value, which is twice the applicable specification of appendix A to this part. Notwithstanding, a differential pressure-type flow monitor for which the calibration error exceeds 6.0 percent of the span value shall not be considered out-of-control if |R-A|, the absolute value of the difference between the monitor response and the reference value in Equation A-6 of appendix A to this part, is < 0.02 inches of water. In addition, an SO2 or NOx monitor for which the calibration error exceeds 5.0 percent of the span value shall not be considered out-of-control if |R-A| in Equation A-6 does not exceed 5.0 ppm (for span values <= 50 ppm), or if |R-A| does not exceed 10.0 ppm (for span values > 50 ppm, but <= 200 ppm). The out-of-control period begins upon failure of the calibration error test and ends upon completion of a successful calibration error test. Note, that if a failed calibration, corrective action, and successful calibration error test occur within the same hour, emission data for that hour recorded by the monitor after the successful calibration error test may be used for reporting purposes, provided that two or more valid readings are obtained as required by § 75.10. A NOx-diluent CEMS is considered out-of-control if the calibration error of either component monitor exceeds twice the applicable performance specification in appendix A to this part. Emission data shall not be reported from an out-of-control monitor.

\* \* \* \* \*

(c) The results of any certification, recertification, diagnostic, or quality assurance test required under this part may not be used to validate the emissions data required under this part, if the test is performed using EPA Protocol gas from a production site that is not participating in the PGVP, except as provided in § 75.21(g)(7) or if the cylinder(s) are analyzed by an independent laboratory and shown to meet the requirements of section 5.1.4(b) of appendix A to this part.

\* \* \* \* \*

2.2.1 Linearity Check

Unless a particular monitor (or monitoring range) is exempted under this paragraph or under section 6.2 of appendix A to this part, perform a linearity check, in accordance with the procedures in section 6.2 of appendix A to this part, for each primary and redundant backup SO2, and NOx pollutant concentration monitor and each primary and redundant backup CO2 or O2 monitor (including O2 monitors used to measure CO2 emissions or to continuously monitor moisture) at least once during each QA operating quarter, as defined in § 72.2 of this chapter. For units using both a low and high span value, a linearity check is required only

on the range(s) used to record and report emission data during the QA operating quarter. Conduct the linearity checks no less than 30 days apart, to the extent practicable. The data validation procedures in section 2.2.3(e) of this appendix shall be followed.

\* \* \* \* \*

2.2.3 Data Validation

\* \* \* \* \*

(i) The results of any certification, recertification, diagnostic, or quality assurance test required under this part may not be used to validate the emissions data required under this part, if the test is performed using EPA Protocol gas that was not from an EPA Protocol gas production site participating in the PGVP on the date the gas was procured either by the tester or by a reseller that sold to the tester the unaltered EPA Protocol gas, except as provided in § 75.21(g)(7) or if the cylinder(s) are analyzed by an independent laboratory and shown to meet the requirements of section 5.1.4(b) of appendix A to this part.

\* \* \* \* \*

2.3.1.1 Standard RATA Frequencies

(a) Except as otherwise specified in § 75.21(a)(6) or (a)(7) or in section 2.3.1.2 of this appendix, perform relative accuracy test audits semiannually, i.e., once every two successive QA operating quarters (as defined in § 72.2 of this chapter) for each primary and redundant backup SO2 pollutant concentration monitor, flow monitor, CO2 emissions concentration monitor (including O2 monitors used to determine CO2 emissions), CO2 or O2 diluent monitor used to determine heat input, moisture monitoring system, NOx concentration monitoring system, or NOx-diluent CEMS. A calendar quarter that does not qualify as a QA operating quarter shall be excluded in determining the deadline for the next RATA. No more than eight successive calendar quarters shall elapse after the quarter in which a RATA was last performed without a subsequent RATA having been conducted. If a RATA has not been completed by the end of the eighth calendar quarter since the quarter of the last RATA, then the RATA must be completed within a 720 unit (or stack) operating hour grace period (as provided in section 2.3.3 of this appendix) following the end of the eighth successive elapsed calendar quarter, or data from the CEMS will become invalid.

\* \* \* \* \*

2.3.1.3 RATA Load (or Operating) Levels and Additional RATA Requirements

(a) For SO2 pollutant concentration monitors, CO2 emissions concentration monitors (including O2 monitors used to determine CO2 emissions), CO2 or O2 diluent monitors used to determine heat input, NOx concentration monitoring systems, and NOx-diluent monitoring systems, the required semiannual or annual RATA tests shall be done at the load level (or operating level) designated as normal under section 6.5.2.1(d) of appendix A to this part. If two load levels (or operating levels) are designated as

normal, the required RATA(s) may be done at either load level (or operating level).

\* \* \* \* \*

2.3.2 Data Validation

\* \* \* \* \*

(d) For single-load (or single-level) RATAs, if a daily calibration error test is failed during a RATA test period, prior to completing the test, the RATA must be repeated. Data from the monitor are invalidated prospectively from the hour of the failed calibration error test until the hour of completion of a subsequent successful calibration error test. The subsequent RATA shall not be commenced until the monitor has successfully passed a calibration error test in accordance with section 2.1.3 of this appendix. For multiple-load (or multiple-level) flow RATAs, each load level (or operating level) is treated as a separate RATA (i.e., when a calibration error test is failed prior to completing the RATA at a particular load level (or operating level), only the RATA at that load level (or operating level) must be repeated; the results of any previously-passed RATA(s) at the other load level(s) (or operating level(s)) are unaffected, unless the monitor's polynomial coefficients or K-factor(s) must be changed to correct the problem that caused the calibration failure, in which case a subsequent 3-load (or 3-level) RATA is required), except as otherwise provided in section 2.3.1.3 (c)(5) of this appendix.

\* \* \* \* \*

(i) Each time that a hands-off RATA of an SO2 pollutant concentration monitor, a NOx-diluent monitoring system, a NOx concentration monitoring system, or a flow monitor is passed, perform a bias test in accordance with section 7.6.4 of appendix A to this part. Apply the appropriate bias adjustment factor to the reported SO2, NOx, or flow rate data, in accordance with section 7.6.5 of appendix A to this part.

\* \* \* \* \*

(k) The results of any certification, recertification, diagnostic, or quality assurance test required under this part may not be used to validate the emissions data required under this part, if the test is performed using EPA Protocol gas from a production site that is not participating in the PGVP, except as provided in § 75.21(g)(7) or if the cylinder(s) are analyzed by an independent laboratory and shown to meet the requirements of section 5.1.4(b) of appendix A to this part.

\* \* \* \* \*

2.3.4 Bias Adjustment Factor

Except as otherwise specified in section 7.6.5 of appendix A to this part, if an SO2 pollutant concentration monitor, a flow monitor, a NOx-diluent CEMS, or a NOx concentration monitoring system used to calculate NOx mass emissions fails the bias test specified in section 7.6 of appendix A to this part, use the bias adjustment factor given in Equations A-11 and A-12 of appendix A to this part or the allowable alternative BAF specified in section 7.6.5(b) of appendix A of this part, to adjust the monitored data.

\* \* \* \* \*

FIGURE 1 TO APPENDIX B OF PART 75—QUALITY ASSURANCE TEST REQUIREMENTS

Test	Basic QA test frequency requirements		
	Daily *	Quarterly *	Semiannual or annual *
Calibration Error Test (2 pt.)	X		
Interference Check (flow)	X		
Flow-to-Load Ratio		X	
Leak Check (DP flow monitors)		X	
Linearity Check* (3 pt.)		X	
RATA (SO <sub>2</sub> , NO <sub>x</sub> , CO <sub>2</sub> , O <sub>2</sub> , H <sub>2</sub> O) <sup>1</sup>			X
RATA (flow) <sup>1 2</sup>			X

\* “Daily” means operating days, only. “Quarterly” means once every QA operating quarter. “Semiannual” means once every two QA operating quarters. “Annual” means once every four QA operating quarters.

<sup>1</sup> Conduct RATA annually (i.e., once every four QA operating quarters) rather than semiannually, if monitor meets accuracy requirements to qualify for less frequent testing.

<sup>2</sup> For flow monitors installed on peaking units, bypass stacks, or units that qualify for single-level RATA testing under section 6.5.2(e) of this part, conduct all RATAs at a single, normal load (or operating level). For other flow monitors, conduct annual RATAs at two load levels (or operating levels). Alternating single-load and 2-load (or single-level and 2-level) RATAs may be done if a monitor is on a semiannual frequency. A single-load (or single-level) RATA may be done in lieu of a 2-load (or 2-level) RATA if, since the last annual flow RATA, the unit has operated at one load level (or operating level) for ≥ 85.0 percent of the time. A 3-level RATA is required at least once every five years (20 calendar quarters) and whenever a flow monitor is re-characterized, except for flow monitors exempted from 3-level RATA testing under section 6.5.2(b) or 6.5.2(e) of appendix A to this part.

FIGURE 2 TO APPENDIX B OF PART 75—RELATIVE ACCURACY TEST FREQUENCY INCENTIVE SYSTEM

RATA	Semiannual <sup>W</sup>	Annual <sup>W</sup>
SO <sub>2</sub> or NO <sub>x</sub> <sup>Y</sup>	7.5% < RA ≤ 10.0% or ± 15.0 ppm <sup>X</sup>	RA ≤ 7.5% or ± 12.0 ppm <sup>X</sup> .
NO <sub>x</sub> -diluent	7.5% < RA ≤ 10.0% or ± 0.020 lb/mmBtu <sup>X</sup>	RA ≤ 7.5% or ± 0.015 lb/mmBtu <sup>X</sup> .
Flow	7.5% < RA ≤ 10.0% or ± 2.0 fps <sup>X</sup>	RA ≤ 7.5% or ± 1.5 fps <sup>X</sup> .
CO <sub>2</sub> or O <sub>2</sub>	7.5% < RA ≤ 10.0% or ± 1.0% CO <sub>2</sub> /O <sub>2</sub> <sup>X</sup>	RA ≤ 7.5% or ± 0.7% CO <sub>2</sub> /O <sub>2</sub> <sup>X</sup> .
Moisture	7.5% < RA ≤ 10.0% or ± 1.5% H <sub>2</sub> O <sup>X</sup>	RA ≤ 7.5% or ± 1.0% H <sub>2</sub> O <sup>X</sup> .

<sup>W</sup> The deadline for the next RATA is the end of the second (if semiannual) or fourth (if annual) successive QA operating quarter following the quarter in which the CEMS was last tested. Exclude calendar quarters with fewer than 168 unit operating hours (or, for common stacks and bypass stacks, exclude quarters with fewer than 168 stack operating hours) in determining the RATA deadline. For SO<sub>2</sub> monitors, QA operating quarters in which only very low sulfur fuel as defined in § 72.2 of this chapter, is combusted may also be excluded. However, the exclusion of calendar quarters is limited as follows: the deadline for the next RATA shall be no more than 8 calendar quarters after the quarter in which a RATA was last performed. A 720 operating hour grace period is available if the RATA cannot be completed by the deadline.

<sup>X</sup> The difference between monitor and reference method mean values applies to moisture monitors, CO<sub>2</sub>, and O<sub>2</sub> monitors, low emitters of SO<sub>2</sub>, NO<sub>x</sub>, and low flow, only.

<sup>Y</sup> A NO<sub>x</sub> concentration monitoring system used to determine NO<sub>x</sub> mass emissions under § 75.71.



MFC-7M-1987 (Reaffirmed 1992), Measurement of Gas Flow by Means of Critical Flow Venturi Nozzles; ISO 8316: 1987(E) Measurement of Liquid Flow in Closed Conduits—Method by Collection of the Liquid in a Volumetric Tank; American Petroleum Institute (API) Manual of Petroleum Measurement Standards, Chapter 4—Proving Systems, Section 2—Pipe Provers (Provers Accumulating at Least 10,000 Pulses), Second Edition, March 2001, Section 3—Small Volume Provers, First Edition, July 1988, Reaffirmed October 1993, and Section 5—Master-Meter Provers, Second Edition, May 2000; American Petroleum Institute (API) Manual of Petroleum Measurement Standards, Chapter 22—Testing Protocol, Section 2—Differential Pressure Flow Measurement Devices, First Edition, August 2005; or ASME MFC-9M-1988 (Reaffirmed 2001), Measurement of Liquid Flow in Closed Conduits by Weighing Method, for all other flowmeter types (all incorporated by reference under § 75.6 of this part). The Administrator may also approve other

procedures that use equipment traceable to National Institute of Standards and Technology standards. Document such procedures, the equipment used, and the accuracy of the procedures in the monitoring plan for the unit, and submit a petition signed by the designated representative under § 75.66(c). If the flowmeter accuracy exceeds 2.0 percent of the upper range value, the flowmeter does not qualify for use under this part.

\* \* \* \* \*

■ 33. In Appendix E to Part 75, Section 2.1 is amended by revising the last sentence to read as follows:

**Appendix E to Part 75—Optional NO<sub>x</sub> Emissions Estimation Protocol for Gas-Fired Peaking Units and Oil-Fired Peaking Units**

\* \* \* \* \*

2.1 Initial Performance Testing

\* \* \* The requirements in section 6.1.2 of appendix A to this part shall apply to any stack testing performed to obtain O<sub>2</sub> and NO<sub>x</sub> concentration measurements under this appendix, either for units using the excepted methodology in this appendix or for units using the low mass emissions excepted methodology in § 75.19.

\* \* \* \* \*

■ 34. Appendix F to Part 75 is amended by removing and reserving section 9 to read as follows:

**Appendix F to Part 75—Conversion Procedures**

\* \* \* \* \*

9. [Reserved]

\* \* \* \* \*

■ 35. Appendix K to part 75 is removed.

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